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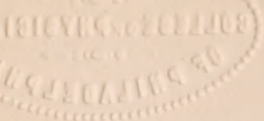


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No. 1.

ORIGINAL ARTICLES.

THE MECHANICS OF NASO-PHARYNGEAL PRACTICE.

By H. N. SPENCER, A. M., M. D., St. Louis.

THE treatment of chronic inflammation of the nasopharyngeal, schneiderian and mucous, membranes associated with chronic catarrhal inflammation of the middle ear, we believe, is receiving more intelligent consideration at the hands of aural surgeons than formerly. That otologists were inclined to overlook or disregard these diseases is most likely accounted for not so much by reason of the unpleasant contact, as from the fact that respectable opinion in the profession had associated the treatment of catarrh with quacks, or semi-respectable men. Otologists then, disclaiming this as being any part of Aural Surgery, contented themselves at most with applications to the pharyngeal end of the Eustachian tubes, and committed the general inflammation of the naso-pharyngeal cavities to the care of another, or satisfied themselves with some general directions given to the patient.

Ten years ago this was the practice in Berlin and Vienna, and in the eastern cities of our own country, where, at that

time, were the only workers in this special field. I am inclined to believe that this usage obtains now with some Otologists in the East—who, however, are careful that these accessory cavities to the tympanum are not neglected when requiring attention, and are fortunate in being able to refer their patients to skillful hands. We feel obliged to deprecate this practice, not only as a refinement, but on the ground of good to the patient. It is impossible that the application made to one cavity can have the same practical applicability to the other, as where directed by the physician who is equally familiar with the conditions and indications for treatment in both cavities alike; and there are manifest reasons for the statement that this combined method of treatment will be the most efficacious of a good result so far as the ear is concerned.

We believe no exception will be taken to the statement that the class of ear diseases to which reference is here made, invariably have their origin in inflammations of the nasal fossæ, or of the pharynx; it being possible to restore the middle ear and Eustachian tube to a healthy condition, and to the performance of their natural functions, we can have no assurance, so long as the naso-pharyngeal inflammation continues, that these parts will not be re-invaded. In the more chronic forms of inflammation, this applies with greater force, and our observation, based upon an experience of nine years in practice, would lead us to the conclusion that we cannot hope to effect an arrest of the inflammatory process in the tympanic cavity without combining with the ear treatment attention to the nose and pharynx.

One more point in this connection. Our experience with this combined method of treatment, (if we may so speak of it), has led us to modify the treatment of the ear which we formerly practiced, and which was in vogue with aurists a few years ago. We do not make the frequent fluid injections through the Eustachian tubes, and have not occasion to practice so frequent introduction of the catheter. Upon this point, however, which we may be led to take up at a

future time, we do not propose to dwell now. Our remarks have rather been preliminary to a consideration of the best means of getting at this ear trouble, (chronic otitis media catarrhalis; chronic non-suppurative inflammation of the middle ear;* chronic catarrh of the middle ear,† etc., etc.) in the seat of its origination.

We design to consider the instruments only which our experience has led us to regard as the most efficient and the *safe*. We believe there is eminent propriety in looking at this question from an otological standpoint.

Some laryngological writers have recommended, and continue to recommend, appliances to which most otologists have been obliged to take serious exceptions. We believe many of these would have been cast aside long ago on practical grounds of inutility, but for the discussions which make men tenacious of their views. The difficulties which have to be met are, on the one hand, the fear of doing injury to contiguous structures, and on the other, the necessity which exists for the removal of accumulations and inspissations, and the making of applications to these cavities. The first of these difficulties, after so much that has been written on the subject, I shall pass over with a very few words of consideration. All instruments and methods of treatment which may do harm in the most skillful employment of them, the true surgeon is not warranted in using, and is left with no excuse if the same object may be accomplished by other and safer means. That all of those instruments which have been employed for flooding the post-nasal cavity, have led to harmful results in the hands of men who have been competent to direct their use, will scarcely be denied by any.

To come to a consideration, then, of the mechanics of naso-pharyngeal practice, the first necessity is for an apparatus with which to illuminate the cavities which are in-

* Treatise on the Diseases of the Ear. By D. B. St. John Roosa, A. M., M. D., p. 261, Ed. 1873.

† A Treatise on the Ear. By Charles H. Burnett, A. M., M. D., p. 381, Ed. 1877.

accessible to unaided vision. For this purpose the ordinary mirror, with head-band, employed in otoscopy, serves the best.

Diffused daylight is preferable to artificial light. In making the examination of the post-nasal cavity through the mouth (rhinoscopy), there is required an additional mirror, which we have in the one which is employed in conducting a laryngeal examination. For aiding the examination anteriorly through the nostrils, a variety of specula have been devised—Thudicum's, Metz's, Watson's, Elsborg's, Fränkel's and others, also Kramer's bivalvular ear

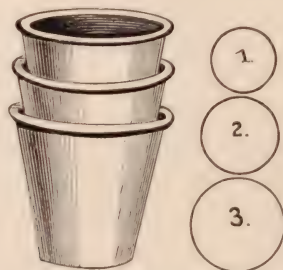


Fig. 1. Set of Nasal Specula. Three Sizes.

speculum has been recommended for this purpose. I had Messrs. A. M. Leslie & Co., eight years ago, make for me a nasal speculum, (see Fig. 1), which I have continued to use since, and think it free from the objections which may be urged against all others. It is very light, made of hard rubber, is self-retaining, and with different sizes, (as are the aural specula after which it was designed), can be made to accomplish any desirable dilatation and be suited to any age.

Having effected bright illumination, which has enabled us to make a careful inspection, we are ready to prepare the surfaces for such dressing and medication as they shall show to be necessary. If the membrane is found to be coated over with an excess of mucus or secretion of other character, degenerated mucus or pus, we may employ for the removal of this the cotton-holder armed with absorbent cotton. The instrument best adapted for this pur-

pose we have found to be one of steel, having an octagonal handle and flexible shank, with sufficient length, (six and a half inches), to admit of its being used also in the post-nasal cavity; its shank being bent at any required distance from the point of the instrument, and at any required angle, it is passed through the mouth and behind the velum. In this connection, and as a means of conveying medication, let us be permitted to remark, the absorbent cotton cannot be too highly appreciated.

If there are accumulations which have become inspissated in the peculiar configuration of the cavities formed by the turbinated bones, that we cannot readily detach with the cotton-holder, we are led to employ the silver curette (skeleton), and the angular forceps. The curette may be readily formed out of the probe by bending its point into this shape, giving it a transverse diameter of one-eighth of an inch, and then bending the curve slightly upon itself. Under the consideration of obstructions, if neoplasms are found, they are best removed with a Blake-Wilde's snare; the canule should be larger and longer, and the wire coarser than we employ for the removal of polypi from the ear.

Having perfected an examination, we are led now to consider the mechanics belonging to the treatment of these parts, (in the form of disease to which this article particularly refers—there are diseases and abnormal conditions of the nose, which, it is understood, do not come within the province of this paper to notice). In circumscribed inflammations, if we desire a fluid application, it is often best done by means of the cotton-holder, to which reference has been made. If powders are to be used, nothing can possibly be superior for this purpose to Dr. Beverly Robinson's insufflator. This instrument can be readily manufactured in the office by taking a morphine-bottle and perforating its cork for the insertion of two glass tubes. The tubes are bent over a flame to an angle of a little more than forty-five degrees, one of which is short, for the attachment of a hand-ball, and its inner end ap-

pears about the fourth of an inch below the cork; the other extends in the bottle to within three-fourths of an inch of its bottom, just above the level of the powder, and its outer extremity may be from four to six inches long.

In diffuse or general inflammation, and in some circumscribed troubles which are not accessible for application by the cotton-holder, we shall have to resort to some other means for treatment. This refers to those conditions which afford a ground for the use of Weber's nasal douche, the post-nasal syringe, etc. Setting aside the danger with which these latter methods threaten the ear, and looking at the parts alone to which they are immediately directed, we should be led to condemn their use, and are convinced that such a procedure is without any analogue in conservative surgery. The histological structure of the membrane, taken in connection with the pathological conditions involved, (the swelling and frequent infiltration of these tissues in inflammation), contra-indicate the use of great quantities of fluid frequently employed with force. We have heard those who use this method of treatment, instruct their patients to avoid using the handkerchief forcibly, and to control sneezing, (giving them careful directions how to proceed to do this), for fear of detaching cilia and doing other violence to the inflamed surface. We suppose *ab actu ad posse valet consecutio*. The mode of treatment which we have found to be the least calculated to cause irritation, at the same time that it answers every therapeutical requirement has been by a spray, *i. e.*, applying to the diseased surfaces a medicated fluid, in a form of atomization, under a pressure not exceeding thirty-five pounds to the square inch.

Where it is desirable to make this manner of application anteriorly through the nostrils, it may be accomplished by means of almost any of the atomizers which are now in such common use; but it becomes more difficult if it is wished to apply it posteriorly to the vault of the pharynx, where the most frequent indications for its use will exist. Bergson's glass tubes and Sass' modification of this instrument, which

substituted a bottle for the open cup, have been discarded for this purpose, as requiring the co-operation of the patient; a co-operation which no degree of intelligence or desire on the part of the patient can always secure. All authorities have agreed respecting this difficulty, which is of the same nature with that experienced in making a posterior rhinoscopy; and as intimated, is not overcome except by judgment and patience, and great care in education. In some cases the exercise of all these virtues will fail. The hard-rubber atomizer, with a curved tip, to pass behind the velum into the post-nasal cavity, promised to overcome the difficulty; but the reflex contractions which are excited very often defeat our object, even with this appliance. The point of the instrument becomes engaged in the contracted tissues, and the instrument, operating at all, does not throw



Fig. 11. Post-Nasal Tip to Hard-Rubber Atomizer.

a SPRAY. Fluid may be forced, we allow, in spite of the contraction, as it may be also by Bergson's tubes, until it will escape by the nostrils. But it will be readily seen that even *in this undesirable form* it will have a limited application—to the posterior surface of the velum and along the floor of the inferior meatus. To obviate this trouble, I have used for a number of years a form of tip represented by the accompanying cut, (Fig. II.), which Messrs. Leslie & Co., had manufactured for me. It will be observed that the long axis of the tip is greater than in the ordinary form, and it has a sufficient antero posterior diameter to raise the

velum from the posterior wall of the pharynx and insures an open space for the operation of the spray; which thus becomes efficiently applied to the two upper meatuses, the septum, the roof of the pharynx, and at will to the orifices of the Eustachian tubes. Dr. Todd, of St. Louis, has made an improvement in the hard rubber spray apparatus which we have found to be of great practical value. He makes a hole in the bottle, over which the index finger of the operator is placed, and by removing which, we have an immediate arrest of the spray.

It will not be found necessary ever to protract the operation; indeed, this should be carefully avoided. If there are accumulations which it is desired to remove, this is accomplished by the instantaneous spray of some solvent solution—repeated if necessary,—after which the patient is instructed to make a voluntary muscular effort to free the parts drawing down the foreign matter to be expectorated. When the surface of the membrane has been cleansed it may be treated with any medicated spray that the case suggests as being necessary.

We are convinced that much of the obloquy which attaches to naso-pharyngeal practice is without foundation in fact; and it is unworthy of a physician to maintain or to encourage this prejudice. It will be dispelled when the profession has formed the habit of devoting more time and patience to the examination of cases coming under this department of surgery, instead of dismissing every patient alike, by ordering for them somebody's favorite catarrh remedy, "which has never been known to fail."

With an intelligent idea of the location and nature of the disease to be treated, there will be no doubt in the mind of any practitioner, who is generally well-informed, as to what agents he ought to employ. His armamentaria in the way of instruments, as we have endeavored to show, may be simple and inexpensive.

May we not hope, from a more careful study of this subject, and the exercise of more caution in the treatment of these diseases, with the knowledge *always* in mind of the

one serious complication that is *always* likely to arise, (the extension of inflammation to the lining membrane of the tympanum, and the *changes* consequent upon it, *which are persistent*), that we shall render less frequent one of the ills which flesh is heir to?

THE SUMMER DIARRHŒAS OF CHILDREN— CHOLERA INFANTUM.

By G. A. MOSES, M. D., *Physician in charge of the Department for Diseases of Women and Children, St. Louis Mullanphy Hospital.*

As the season of prolonged high temperature approaches, the denizens of cities who are enriched by possession of Cornelian jewels, look with increased anxiety to the welfare of the infants and children who, in the very height of developmental changes, are peculiarly liable to severe and fatal diseases affecting the digestive apparatus; so that notwithstanding the abundant literature of the subject, and in spite of the fact that we are only repeating knowledge that is old, it may not be untimely to direct afresh our attention to a class of diseases which, though so frequently observed, still claims its victims by thousands, which fact should stimulate us to further effort to combat its most dire results.

It is a common nosological error to designate nearly all severe diarrhœas affecting the young during the summer months, as “Cholera Infantum” or “Summer Complaint;” and if death result without violent cerebral symptoms, this nomenclature is the rule. A glance at the mortuary reports of cities will establish this statement. Whereas, I am satisfied that the majority of such cases are not choleraic, in incipency at any rate, but either inflammatory or so-called non-inflammatory diarrhœas, which, by reason of the depressing influences of heat, bad hygienic influences, often of neglect or improper treatment, usually attempted by parents or nurses, exhaust the little sufferers or occasion such destruction by ulcerative processes that death follows.

Dewees has given us as good a description of cholera infantum as may be found in any of the later treatises with which I am acquainted, and necroscopic examinations have not advanced our knowledge. So far as diarrhoeal affections, *e. g.*, enteritis and entero-colitis, are concerned, my observations fully confirm the remarks of Dr. W. Johnston, that adults are quite as subject to them as are children, and even more so; especially, I think, for the reason that the diet and general welfare of the latter are ordinarily more carefully guarded. That the results of such diseases should be more serious to the infantile economy is not to be wondered at when we consider the wide difference in the activity of the physiological processes and the immaturity of the anatomical conditions during infancy; in addition to which, causes for increased gravity of all diseases during infancy and childhood exist in the presence of certain diathetic conditions, which, when adult life becomes established, to very great extent disappear, or lose to considerable degree their importance. For instance, inherited syphilis, tuberculosis, struma—all of which seem to endow the glandular system particularly with latent susceptibilities to the influence of acute disease, the gravity of which is recognized, but can scarcely be estimated; and in a large number of cases, such congenital predisposition, especially that due to syphilis, is so strongly marked as to lead a very careful observer, Dr. Earnest Sanson,¹ to say that “in any case in which diarrhoea persists, and you have excluded improper feeding or the early symptoms of acute disease as a probable cause, suspect congenital syphilis.”

While these dyscrasias render the system obnoxious to disease and the sequelæ, they also retard development, and thus secondarily endanger the integrity of function.

While pathological conditions, latent or active, are prominent predisposing conditions, the physiological phases of infancy are none the less so, especially during the age of nursing and dentition, when the function of intestinal diges-

¹ Obst: Jn'l G. B. & I—Dec. '73.

tion is, in proportion to the early age, more constantly active, the normal demands for the succus entericus, being repeated at short intervals, as ingestion is frequently repeated; the intestinal mucous membrane may be considered to be physiologically hyperæmic (the arterial capillary system predominant), that is, a proportionally large supply of blood is directed towards this tract, and for the control of this we find the ganglionic system of nerves in advanced development, and exhibiting the utmost degree of susceptibility. Under such circumstances, what wonder is it that any exaggerated or continued cause of irritation or exhaustion should produce disease, always serious and often disastrous? As a logical consequence, then, we find, air empoisoned by overcrowding, by sewer emanations, by filth under circumstances which encourage fermentation, agents constantly present in cities, to so deprave nutrition that any exciting cause of derangement acts with greatest virulence; and during the summer, when the persistent high temperature acts as a powerful depressing agent upon the nervous system, comparatively slight irritants in the shape of improper diet, which may be at times unavoidable, as in hand-raised infants, are all sufficient to provoke attacks of diarrhœa, of the same nature as, but more grave in character than, those occurring during any other season. The peculiar climatic form of disease which was once thought to be almost peculiar to American cities, is the "cholera infantum," "choleriform diarrhœa," the commonly-named "summer complaint," which is beyond question due to sustained heat as its chief cause, apart from dietary errors or hygienic influences, although these may influence the onset of the attack. In an article by Dr. Johnston, already referred to, bacteria are supposed to play an important rôle in the etiology of the disease. In the present state of knowledge, I do not think we have sufficient grounds for this assumption, for reasons which time and space forbid consideration of in this article. Rilliet and Barthez consider the disease to be "a catarrh which has localized itself upon the digestive tube and the great sympathetic nerve."

That the nervous system of organic life is the starting point of the morbid action, I am satisfied. A paresis of the vaso-motor system results from the prolonged dry heat, which, permitting dilatation of the capillaries of the mucous tract, occasioning serous effusion, and to greater or less extent destruction of the intestinal epithelium which is cast off with the serosity, of which the profuse white or whitish discharges consist, being in fact a white hæmorrhage, accompanied by entire arrest of secretion, rapid loss of temperature, enfeebled cardiac action—in short, collapse. This may terminate spontaneously, and often does, lapsing into an ordinary but usually refractory inflammatory state, in which high grades of fever occur. The gastric mucous membrane is usually affected at the same time and in the same manner. Thus, the disease has all the aspects of a catarrh, which is not always, as it is often said to be, an increase of secretion, or anomaly of secretion, but, under these circumstances particularly, an arrest of secretion.¹ The temperature is irregular, usually low unless complications are about to ensue. (Wunderlich's Medical Thermometry.)

Treatment should, as far as possible, be prophylactic; the most important measures being those which will counteract the effects of surrounding temperature and hygro-metric condition of the atmosphere. Of the electrical states we as yet know nothing. Cool saline baths, frequently repeated in proportion to the intensity and depressing effect of the heat; cool drinks, containing occasionally fruit juices, country air, whenever it can be attained, by means of change of abode or visits to the largest, woodiest parks. In case the child be weaned, the diet should be carefully adapted to the period of life, and administered at properly-adjudged intervals and in reasonable quantities. Clothing should be just enough for protection—as light and loose as possible. The process of dentition should be observed, and at the first indication of fretfulness aris-

1 Rindfleisch Pathological Histology, § 352, vol. 1. Syd. Soc. Trans.

ing from tense, congested gums, these should be *freely, deeply* lanced.

Secure, as far as possible, comfortable, restful periods of sleep, particularly the night-sleep. This may be conducted to, by exchanging soft mattresses for hard ones; water or air beds might be good; a hair or air pillow is superior to one of feathers; and if the irritation of the lichen tropicus "*heat*" or the gums interfere, a small dose of sodium bromide in aqua aurantii flor., will answer a healthful purpose, with cooling drinks whenever waking occurs.

Therapeusis of the attack, has been a matter of great variety of opinion. Without combating at present the contrary recommendations, suffice it to say that the plan of Dr. Dewees, described in his admirable treatise on diseases of children, has proved more satisfactory to me than any other. That is, at the outset, small doses of calomel, one-tenth to one-fourth of a grain every hour until the character of the evacuations is improved. In addition to this, when the stomach is very irritable, a mixture containing a small quantity of calcined magnesia in cinnamon water, or a weak, very cold solution of bi-carbonate of soda, taken every 15 minutes, will frequently answer an excellent purpose. No food should be permitted, not even the breast, until the choleriform symptoms shall have been much diminished. Cold egg-water, made by breaking the white of a fresh egg into a glass of water and tossing this from glass to glass until thoroughly mixed, made very cold with ice, may be administered in teaspoonful doses at short intervals. This will allay thirst, and not irritate. Food is of no service, but of harm, as digestion is impossible.

When the mucous infiltration shall have subsided, as will be evinced by diminished frequency of discharges and the appearance of the yellowish-colored succus entericus, the calomel may be given at greater intervals, and a simple astringent mixture, such as the *mistura creta*, with or without a very small quantity of opium, may be administered; but both for the purpose of relieving pain, securing sleep, and allaying nervous irritability, I prefer the bromides or chloral.

In the stage of collapse, counter-irritants may be used; as the rubbing with mustard, or mustard baths; but I doubt the utility of these measures, and never resort to them. I object entirely to the early use of astringents or opiates. They seem to be in every way counter-indicated. Bactericides, especially mercuric chloride, (corrosive sublimate), in proportions of one grain to twelve ounces of distilled water, one teaspoonful mixed with a teaspoonful of milk which has been previously heated to 150° F., is recommended by Ravenberg. He administers this solution in doses proportioned to the age and condition of the patient, and asserts it to be of very great benefit.

Stimulants may become necessary, and I know of none which equals pure French brandy, which may be partially burned before using, to rid it of a portion of the alcohol. The room in which the patient is confined should be shaded, quiet, and cool as possible; a tub of ice on a table, exposed to the atmosphere, will serve to lower the temperature perceptibly; while among the poor I have had infants exposed all night out of doors, with decided benefit.

The cerebral symptoms which at times occur in form of convulsions or coma, are of most serious import, indicating profound anæmia and perhaps toxæmia, as there is always complete arrest of all the excretory functions. In such instances stimulants combined with the means already mentioned are our only resource—brandy and ammonia in very weak solution, and absolute quiet.

Convalescence requires to be carefully observed, and a return to ordinary diet should be very gradual, as very slight causes suffice to re-establish diseased action.

Some of the other diseases of the alimentary canal in infants will be considered at another time.

NOTE ON SOME OF THE USES OF SULPHUR, THE SULPHIDES, AND THE HYPOSULPHITES.

By W. A. HARDAWAY, M. A., M. D., ST. LOUIS. *Member of the American Dermatological Association.*

MY experience with these drugs has been principally in connection with diseases of the skin and syphilis, and I shall, therefore, only incidentally refer to their influence over other affections.

Sulphur, whether used in the form of bath, as a fumigant, by internal administration, or topically applied, has long enjoyed great credit in the treatment of syphilis and cutaneous maladies. Fracastor, in his famous poem, speaks of the efficacy of sulphur baths in syphilis, and the Italians early resorted to the natural sulphurous vapors of Solfaterra for a like purpose. While it may safely be said that sulphur has no influence over syphilis, it is an interesting subject of inquiry to discover whether a course of sulphur baths has the power of re-establishing any of its latent symptoms, especially on the skin. If this were a fact, it would be an eminently satisfactory method of determining the existence or non-existence of the disease in a patient at a given time.

No less a writer than Lancereaux¹ seems to regard sulphurous mineral waters as the "touch-stone of syphilis," on account of the property they possess of developing manifestations which had previously remained latent. He acknowledges, however, that Ricord, Durand-Fardel and others, are not convinced of the infallibility of this test. I find the exact nature of such eruptions nowhere described, nor whether they present any analogies to the ordinary syphilides. It is known that the sulphur bath produces an eruption of its own, and it is possible that this has been confounded by careless observers and ignorant persons with the manifestations of syphilis. Rayer² has

¹ A Treatise on Syphilis. New Sydenham Society, 1869.

² A Theoretical and Practical Treatise on Diseases of the Skin. Am. Ed., 1845.

described the lesions thus produced, as consisting of red, acuminated spots and blotches extending more or less over the whole body, and sometimes attended with fever.

Aside from the good results arising from hygienic surroundings, new modes of life, and a beneficial action on the emunctories, the curative powers of thermal springs are but slight, since relapses as frequently occur after such treatment, and it is a notorious fact that the practitioners at these resorts are even more industrious in the administration of specific remedies than their other brethren.

A little known property of sulphur is its antidotal influence to mercury. Hence, it is of especial value in the treatment of salivation from that drug. Hunter¹ was well aware of this fact, and it may not be uninteresting to quote his comments on the subject: "Sulphur was supposed to be a specific for the removal of the effect of mercury. Whether this practice arose from practice or reasoning, is not material; but I think I have seen good effects from it in some cases. * * * * * Sulphur certainly enters the circulation as sulphur, because our sweat and urine smell of it; if it does not combine with the mercury and destroy its properties as mercury, it is possible, agreeable to the opinion of those who first thought of giving it with this intention, that it may so combine as to form æthiops mineral, or something similar; for we know that the æthiops mineral, however formed, does not in general salivate. It is possible, too, that sulphur may act as a contrary stimulus to mercury, by counteracting the effects of it in the constitution, etc."

Swediaur² also considers sulphur as the principal agent in combating salivation, and gives directions for its use.

Andral, quoted by Piffard,³ says of the preparations of sulphur that, "far from enjoying curative properties, they neutralize the effects of mercury. M. Ricord, in fact,

1 Treatise on the Venereal Disease. Philadelphia, 1791.

2 A Complete Treatise on the Symptoms, Effects, Nature and Treatment of Syphilis. Philadelphia, 1815.

3 Elementary Treatise on Diseases of the Skin. London and New York, 1876.

recommends the employment of sulphur when salivation or other pathogenetic effects of mercury are produced. Piffard strongly corroborates these statements.

For many years, sulphur under various forms was highly commended for the non-specific diseases of the skin, but among modern dermatologists its range of usefulness is not considered very extended. McCall Anderson¹ expresses the common sentiment on this subject, in the following words: "We are told that sulphur is the great blood depurant in the case of diseases of the skin; but for my part, I am as little partial to it when administered internally as when used as a local application." Within a limited field, however, Anderson, as well as others, is willing to regard it as a drug of the greatest value. There is no remedy comparable to sulphur in the treatment of acne, and some forms of rosacea. I refer, of course, to its topical application. It may be used in lotion or ointment, and in almost every stage of acne. My favorite preparation of sulphur is the English hypochloride, which I am assured is vastly more beneficial than the other forms. I am in the habit of ordering it in the strength of from four to twelve grams to thirty-two of vaseline. Sulphur is also one of the best local applications for seborrhœa of non-hairy parts.

It is almost superfluous to mention the use of sulphur in scabies, although even here it must be remembered that it is an exceedingly irritating drug to some skins, and that other remedies sometimes serve a better purpose. It is perhaps true, that with the exception of the few diseases enumerated above, sulphur, both as an internal and local remedy, is of no particular value: at any rate, there are other preparations of so much greater value, that the dermatologist has but little occasion for its use in other affections.

The use of the *Sulphides* in suppurative processes, so far as I know, was first brought into prominent notice by Sydney Ringer, and although I am disposed to take many of his therapeutical recommendations *cum grano salis*, there is

1 The Treatment of Diseases of the Skin. London, 1872.

no doubt in my mind of the efficacy of this group in such conditions. According to Ringer,¹ the sulphides, if given early enough, will prevent the formation of pus, but if that event has occurred it will considerably hasten maturation. The member of the group preferred by him is the sulphide of calcium, which he gives to children in the dose of $\frac{1}{20}$ grain hourly, and to the adult from $\frac{1}{10}$ to one grain. It may be given in powder with sugar of milk, or in the gelatine-coated pill; likewise, for children, by dissolving one grain in half a pint of water, of which give a tea-spoonful hourly. This latter should be made fresh every day, as the salt rapidly oxidizes. I have used the sulphide of calcium in carbuncles, boils, glandular abscesses, and in acne. As a rule, I have found the drug to act admirably, and in the manner stated by Prof. Ringer. My general impression, however, is, that it acts particularly well in suppurative processes affecting glandular structures. Some of my best results with the sulphides have been in acne. I prescribe for my patients a dozen or more of the little gelatine-coated pills, $\frac{1}{10}$ grain, to carry about with them, and instruct them to take one hourly until five or six are taken, when they notice a commencing pustule. It really seems to abort them. In indurated acne, where the pus is very deeply seated, and with very little disposition to maturation, this drug has seemed to hasten the process. These observations are given for what they are worth, for no one appreciates the possible fallacies of therapeutical conclusions more than the writer. Other observers, however, have borne similar testimony concerning the sulphides, and there is little doubt that they possess the virtues ascribed to them.

The *Hypsulphites* and *Sulphites* act very similarly to the Sulphides, at least in controlling the formation of pus, and besides are among the most efficient parasitocides at our command. Anderson very highly recommends the hypsulphite of sodium in recurrent furunculi, and gives some illustrative cases. My own experience bears out his re-

1 A Hand-book of Therapeutics, New York, 1878.

2 Loc. cit., p. 171.

commendation. Bulkley and others likewise extol this remedy in boils. The dose is one to two grams, largely diluted, three or four times a day. When Inspector of Small-pox in this city during the epidemic some years ago, I had many hundreds of cases of variola under my observation, with the opportunity of testing various plans of treatment in that disease. As the result of my experience, I came to the conclusion that the hyposulphite of sodium was an invaluable remedy for small-pox. If Polli's theory of the action of these drugs is at all tenable, then surely they are indicated in variola. Owing to the influence of previous vaccinations in modifying small-pox, it is particularly difficult to arrive at any very exact conclusions as to the effect of medication; but having treated all types of the disease, and many *unvaccinated* children, with the hyposulphite, I am prepared to state that my results were highly encouraging. One thing that I frequently noticed in using the hyposulphite, was the prevention or modification of the pitting—a result that with my present experience, I would be led to expect.

In the treatment of ring-worm, the hyposulphite, in ointment or lotion, is very useful. Tinea versicolor can be very rapidly removed by the application of a strong lotion of the same drug frequently sponged over the surface.

TREATMENT OF FIBROID TUMORS OF THE UTERUS BY ELECTRICITY.

BY J. HARTMAN, M. D., PARIS.

According to Dr. Cheron, the induction currents cannot be long tolerated in the treatment of uterine fibroid tumors, because their application is too painful and brings on a condition of nervous irritation which the patient cannot resist. The continued currents have not the same inconvenience, but they do not bring good results; instead of the tumor diminishing, it seems to augment the volume, and brings on almost constantly an abundant metrorrhagia. The only mode of employing elec-

tricity that is applicable to this malady, according to him, is the intermittence of a continued current, one of the electrodes being placed in the cervical canal, the other on the abdominal parietes. The current is given by a pile of numerous elements, one hundred elements of Remak at least, and is interrupted at regular intervals of short duration.

Intermittence of the continued current does not determine any pain; it is easily supported and rapidly brings on a diminution of the tumor; each intermittence has for its result the contraction of the muscular elements which are traversed by the current, the uterine vessels contract at the same moment, thus compressing the tumor and diminishing its volume. On the other hand, the contraction of the abdominal parietes and the muscles that are passive, exercise at the same time on the unhealthy organ, a sort of massage, which is a new cause of resolution of the tumor. Under the influence of this treatment uterine tumors diminish rapidly. They lose their muscularity, and finish by almost disappearing. But it must not be believed that one can have complete resolution of the tumor. The fibromyoma cannot disappear entirely, but is transformed. It has for its elements muscular fiber, and blood vessels, that might well submit to fatty degeneration, and ultimately be absorbed, but the fibrous tissue is refractory to a similar mode of regression; on the contrary it becomes more dense, and produces a sort of sclerosis of the tumor; which hastens the disappearance of the elements. In a word the tumor is changed in its nature, with a good result for the patient. It suppresses the muscular and fibrous elements, in a manner that puts an end to hemorrhage and to pain, at the same time it reduces the volume of the tumor and thus places the patient in a condition which is equivalent to a cure. I have seen this method frequently applied at the clinique of Dr. Cheron, with apparently good results. The instrument he uses is rather complicated.

CASES FROM PRACTICE.

PUERPERAL ECLAMPSIA.—RECOVERY.

BY J. L. HENDERSON, M. D., JACKSON CO., MO.

Mrs. B., aged twenty, has been living in this State one year, formerly from Niagara Falls, Canada; stout built; primipara in the middle of the ninth month of pregnancy. On the morning of the 26th of May, 1879, arose from bed with a violent frontal headache, but went into the kitchen and prepared breakfast for her husband.

At 8, A. M., had the first convulsion. From that time, until 11, A. M., the time at which I saw her, she had six convulsions. A short time after I entered the room she had the seventh, which was very severe, lasting four minutes, followed with loud stertorous breathing and coma, and a greenish, bloody, frothy saliva running freely from the mouth. Face very much swollen and purple, feet and hands œdematous, so much so that on pressure with the finger the depression would remain for some time. Pulse, eighty; respirations, 25. Without loss of time I took from the arm thirty-five ounces of blood, and began the use of chloroform. In half an hour the pulse was one hundred and twenty, but soft. The purple partly left the face. Within the next hour vomited several times, and a quantity of almost pure bile. At 12, A. M., gave 20 grains of bromide of potassium. When she was not entirely under the influence of chloroform, she was continually rolling the head from side to side, and pressing the hands on the forehead. At 2 P. M., she had another convulsion, during which the arm began bleeding. As soon as I could, I held her up and allowed what I thought to be twenty ounces more blood to flow. For six or eight hours I kept her almost entirely under the influence of chloroform. At 5 P. M. I drew from the bladder a small quantity of natural-looking urine, but had no means or time to test it; gave her 12 grains of calomel; the bromide of potassium was continued in 20-grain doses every three hours. At 2 A. M., the following day, May 27, she had another convulsion; soon after I gave an enema and obtained two free actions from the bowels.

There had been no evidence of uterine action; cervix hard and rigid: pelvic cavity roomy. After the last convulsion the patient seemed almost entirely unconscious; eyes occasionally open wide; pupils contracted; pulse varying from 100 to 140. I stopped the bromide and gave 30-grain doses of citrate of potassa in 2 oz. of lemonade every three hours. Kept cloths applied. Find she has passed urine freely. At 12 M. sent for my friend, Dr. Frick; met him at 3 P. M.; patient seemed more conscious; could speak, and answered some questions; no signs of labor; we did not feel justified to interfere. Dr. Frick left at 6 P. M. Patient slept nicely during the night; passed urine several times; had one large action from the bowels; complained some of pain in the head, which was relieved by a little chloroform. Gave her during the night and day beef tea several times. May 28th, 6 P. M., patient begins to get restless, with some uterine action. May 29th, 4 A. M., pains regular, but not hard; skin moist; pulse 100; complains of being hungry; says she has no pains in the head; cautiously giving chloroform. Matters progressed nicely until about 6 A. M.; head well down in the pelvic cavity, but not pressing on the perinæum; without any premonitory symptoms, she had a very severe convulsion, followed in quick succession by two others; perfectly comatose, with labored, stertorous breathing. I had but two lady assistants; as soon as I could get them quiet, I introduced the forceps, and delivered, in less than five minutes, a living female child, weighing 7 pounds. In a short time I took the placenta, with some clots, though not many. The uterus contracted well. She now remained in profound coma for half an hour or more, with loud stertorous breathing, when another very severe convulsion came on, leaving a spasmodic jerking of the left leg and arm. I put into the arm 12 minims of Magendie's solution of morphine. Two more convulsions came on at intervals of fifteen minutes, when I injected 8 minims more of Magendie's solution in the other arm. Twenty minutes more, and she had the fourth convulsion after delivery and the sixteenth in all.

Notwithstanding Prof. Barker's opinion to the contrary, I cautiously administered chloroform after delivery. Although she was profoundly comatose, and breathing loud and stertorously, I began its use just after the last convulsion, and kept her, for four hours, what I thought to be nearly entirely under its influence, allowing plenty of pure air.

Such is the brief history of a case that caused me much anxiety during its continuance, and the very favorable termination of which, I think, was largely attributable to the use of chloroform after the delivery. One regret I have is, that I did not push the use of chloroform more vigorously as the labor advanced. But the symptoms were so favorable I was flattered into the belief that the trouble was over.

May 31st, 8 A. M., patient has been sleeping most of the time. This morning she seems much more conscious; had her child brought to her bedside; she smiled, but did not take much notice of it. June 15th, speech and movements rather slow and hesitating.

Under the use of tonics and a nutritious diet she is getting her color, and gaining strength finely. Child has slept rather more than is usual, but has never shown the least symptoms of disease.

PUERPERAL ECLAMPSIA.

BY E. M. NELSON, M. D., ST. LOUIS.

About 10 A. M., June 19th, I was called to see M. B., a colored woman, aged 27. She had supposed herself to be within two or three weeks of the time of her confinement. I had seen her some two weeks previously, and, at that time, she said that she was feeling very well, and all the vital functions seemed to be performed normally. When I was called, the statement was made that she had been having spasms.

On reaching the house, I found the woman lying in a comatose condition, from which it was impossible to arouse her. Within a few minutes after my arrival she was seized with another convulsion. This commenced with a tonic spasm of the respiratory muscles, with a strong turning of the head to the left and drawing it down toward the left shoulder, and rigidity of the general muscular system. After some fifteen or twenty seconds, clonic convulsions supervened, lasting about forty-five seconds. The women in attendance said she had already had nine or ten such attacks. She had complained the previous day of having "pain in her stomach;" and had had pain through the night so that she had slept little or none. Her husband had gone to work, and

one of the neighbors had found her upon the floor of the adjoining room in a convulsion, about an hour and a half previous to the time of my arrival.

After the convulsion had ceased, I made a vaginal examination, and found the os uteri dilated to the size of a dime, with a vertex presentation in the second position, (right occipito-anterior).

In the course of the next three hours, there were seven returns of the convulsions, each one lasting from one minute to two and a half minutes. I administered chloroform to moderate and control the attacks. In the intervals between the convulsions she was very restless, and tossed herself about on the bed, apparently having pretty strong uterine pains, but at no time did she seem conscious. (This was not from chloroform narcosis, as the inhalation was suspended except during the convulsions.) Dilatation progressed very slowly, and shortly before one o'clock I made use of a vaginal injection of hot water to the amount of a gallon or more. During the following hour and a half there were four strongly-marked convulsions. I had sent for my friend Dr. Post to assist me, as I could not well manage both chloroform and forceps, which I intended to apply as soon as the dilatation should be sufficient to admit of doing so. At half past two we administered another copious injection of hot water. The os uteri was then dilated to a little more than the size of a silver half dollar, the border firm and not very thin, nor apparently dilatable. It was impossible to apply the forceps, and it seemed probable that the irritation that would be caused by version would be more injurious than a longer delay in order to allow of more complete dilatation. While we were still standing at the bedside, having hardly more than had time to wash my hands after making an examination and finding the os but a little larger than a half dollar, we heard the gurgling sound of the breaking of the waters, and almost immediately the cry of the infant. Dr. Post laid his hand upon the abdomen and found the womb contracting well, and the placenta was immediately extruded into the vagina, and thence removed. There was very little hæmorrhage; the child, though small, was well-developed, and seemed to have been in no way affected by the convulsions of the mother. In spite of the rapidity of the second stage of delivery, there was no laceration of the cervix uteri. At three o'clock, ten minutes after the birth of the child, another con-

vulsion occurred. I then administered morph. sulph. gr. $\frac{1}{3}$ (.02 gram.) hypodermically. I remained nearly an hour with her. There was no recurrence of convulsions; there was no more hæmorrhage than is normal after delivery; and all seemed favorable.

I saw her again at half past six o'clock. She had slept, they said, since I left, and had had no convulsions.

At ten o'clock I called again. She had had two convulsions during the hour preceding. The character of the pulse at the time suggested the propriety of bleeding. I opened the median basilic vein of the right arm, but the blood flowed in a sluggish stream, and I only succeeded in obtaining about four ounces, which coagulated almost as soon as it reached the basin. I then ordered one grain (.06 gram.) of elaterium to be divided into four parts, and one administered in a little butter, as suggested by Dr. Fordyce Barker, every fifteen minutes until she should have free evacuation of the bowels. She took the four doses with no more apparent affect than if they had consisted of so much chalk. An enema of soap-suds brought away a small quantity of fecal matter. The convulsions returned during the night, with intervals varying from half an hour to an hour. I continued to administer chloroform whenever the symptoms indicated the approach of one. About five o'clock I administered a dram and a half of bromide of potassium per rectum.

Two drops of croton oil were administered at half past seven and the dose was repeated at nine o'clock, with the effect of producing two free evacuations of the bowels. She was more quiet after this, and seemed to suffer comparatively little. There were but two more convulsive seizures, and at four o'clock in the afternoon she died without at any time after the first attack returning to full consciousness.

I regret very much that I was unable to secure an autopsy, and that I failed to secure any urine for examination. Her husband said that she had complained of her feet swelling some during the last few days, but there was no œdema of hand or face. She had borne three children previously, with little suffering and prompt recovery.

[NOTE.]

In the last volume of the "Transactions of the Pathological Society of Philadelphia," James A. Tyson, M. D., has a valuable paper upon the subject of "THE CAUSAL LESIONS OF PUERPE-

RAL CONVULSIONS." He reviews the literature of the subject very thoroughly, classing the writers as: I. Those who make the causal lesions of puerperal convulsions, in the main identical with those of Bright's disease; II. Those who oppose the view that puerperal eclampsia is due to Bright's disease; III. Those who admit that Bright's disease is sometimes the cause, but think that it is quite as often due to other causes.

As the result of his study and observation he reaches the following conclusions:

"*First.*—There are no reasons why we should exclude from the causes of convulsions in the puerperal state those which operate to produce convulsions in the non-puerperal condition," especially "since the nerve-centres of the pregnant woman are generally hypersensitive," and hence, "any such irritation as the pressure of a child's head upon a rigid os, * * * or the irritation of uterine nerves compressed during muscular contraction, or emotion, whether pleasurable or painful, distress, anxiety,—all *may* excite a convulsion. And it is not impossible that such a convulsion may be fatal, as it is not impossible that such a convulsion may be fatal in the non-pregnant woman. But such a result is indeed rare, and convulsions from these causes are not generally serious. They occur most often in primiparæ, where the labor has been long and painful." He thinks that such convulsions may also occur after delivery, and that this is "the nature of the convulsive attacks in most cases reported, where there is no albuminuria before the attack, and but little after it."

"*Second.*—I think it not impossible, even, that puerperal convulsions may be caused by the congestion to which these same centres are subjected in a hard labor, as is evidenced by the red face, the protruding eye-balls, and headache, often agonizing during a pain, which the muscular effort produces."

"*Third.*—Outside of these categories, in which I would include a limited number of comparatively harmless cases and a smaller number of more serious ones, I would assign the causal lesion of puerperal eclampsia to be Bright's disease of the kidneys. The Bright's disease which I believe to underlie the large majority of serious cases of puerperal convulsions may either be present at the time the woman becomes pregnant, or it may be acquired during the pregnancy. In the former case, as Dr. Barnes has said, 'the pregnancy does not mend matters,' and

the tendency, at least, is, by reason of the pressure and congestions naturally present in pregnancy, further to interfere with the elimination of excrementitious matters, whose secretion is already embarrassed by the renal lesion, independent of any addition thereto from the pregnant state. And yet it is a fact observed by very many that such persons by no means necessarily have convulsions before, during, or after labor, especially if they are multiparal. * * * But we must at least admit the pregnant woman with pre-existing Bright's disease to be in the same danger of convulsions as the woman with Bright's disease who is not pregnant, and it is not unreasonable to suppose that the danger of the former is somewhat greater than that of the latter, and in cases of primiparæ very much greater. And thus are caused some cases of puerperal convulsions. In these cases the form of Bright's disease may be any one of those to which all are subject.

"In the second series—where the disease is acquired—it is almost invariably catarrhal nephritis (parenchymatous nephritis, or tubal nephritis), of which the typical example is seen in the Bright's disease concurrent or sequel to scarlet fever.

"This conclusion—that most cases of puerperal convulsions are caused by Bright's disease—is justified by the fact that these cases are almost invariably accompanied by *albuminuria*, and, where a microscopic examination of the urine is made, by *tubercasts*; that a very large number are also attended by *œdema*; and that where they terminate fatally, the autopsy generally reveals disease of the kidneys." "Finally, if it is remembered that experience often shows temporary absence of albumen in some cases of chronic Bright's disease, and that cases have even been reported with *albuminuria*, *dropsy*, *uræmia*, and death after scarlet fever, and yet the *autopsy* discovers no lesion in the kidneys,—when all these matters are considered, *I cannot but think that the number of serious cases of puerperal eclampsia which cannot be attributed to some form of Bright's disease is small.*"

"Now, as to the *cause of these renal changes* which lie at the bottom of so large a number of cases of puerperal eclampsia. How are they induced?" One view "attributes them altogether to pressure upon the emulgent veins, caused by pressure of the pregnant uterus, producing congestion, *albuminuria*, and imperfect elimination of matters usually thrown off by the kidneys." "The opposite party ascribe the parenchymatous nephritis to

an intoxication of the blood due to the increased amount of excrementitious matter which must enter it from the retrograde metamorphosis of the tissues of the fœtus, as well as of the mother, and consider its operation to be like that of the poison of scarlatina, which similarly produces a catarrhal nephritis."

"I think the mistake consists in the adoption of either view to the exclusion of the other. Doubtless both contribute to it in various proportions, according as circumstances favor the operation of one or the other."

"Now, as to the toxic agent itself in those cases of puerperal convulsions due to Bright's disease. * * * There is little doubt, in my mind, that it is not urea, or carbonate of ammonium, or any single substance; but it is the entire mass of excrementitious substances usually eliminated by the kidneys, which, retained in the blood, give rise to the uræmic symptoms of Bright's disease, and to those cases of puerperal eclampsia depending on Bright's disease."

PUERPERAL ECLAMPSIA.

(OBSTETRIC CLINIC, FACULTY OF MEDICINE, PARIS.)

BY J. HARTMAN, M. D., PARIS, FRANCE.

The woman entered the hospital on the 2d of March, 1879, 4 P. M. Constitution good. Primipara.

Menstruation very irregular from the age of 17 years with occasional suppression; lasted usually about five days. Last menstruation from about the 10th to the 15th of June.

Accidents and Complication of Pregnancy.—Albuminuria,—œdema of the inferior limbs, considerable œdema of the vulva.

Appearance of the First Pain.—Probably after the commencement of the attack.

Rupture of Membranes.—Dilation almost complete at the moment of intervention.

Time and Mode of Intervention.—The 20th of March, 6 P. M., of forceps and craniotomy.

Parts of the Fœtus that Presented.—Vertex O. I. R. P. After-birth, natural. Sex, masculine. Died during labor. Weight, 3250 grams, (6½ pounds,) without the cerebral mass. Length of the cord, 57 centimeters (22½ inches).

In the first months of pregnancy her limbs swelled; palpitation of the heart; leucorrhœa. On the 26th of February œdema commenced. She entered the hospital on the 2nd of March. On examination it was found that her limbs were œdematous, the right more than the left; the vulvæ were colossal (Professor Depaul stated that he did not recollect any case equal to the one under consideration, and he has had thirty years or more of service in this hospital), extending downwards a very considerable extent, to near the middle of the thigh, and projecting both forward and backwards, the margins of the labia majora were found posteriorly, being pushed back by the infiltration, the limbs were flexed and the thighs as widely apart as it was possible for her to hold them, in a semi-reclining position, supported by pillows. No œdema of the arms; the face slightly swollen. Albumin in notably great quantities, cephalalgia, the heart sound regular. Professor M. Depaul ordered 1.50 grams of chloral. As to the infant, it is felt moving, and the heart sound is heard on the right side. The following day punctures were practiced at the vulva; a serous liquid escaped; the immense swelling, however, was soon reëstablished; cephalalgia, diminution of vision; she was bled, and instead of drawing 400 grams (about 13 oz) of blood, as was prescribed, there were only 150 grams (about 5 oz.) drawn. Fresh punctures; albuminuria persists; vomiting after meals.

March the 18th, œdema of the vulva has reached its maximum; the patient cannot sleep and she is very fatigued, because she can take only one position, that is the dorsal, the limbs very much separated.

The 20th of March, at 5:20 A. M., she had the first eclamptic attack; a second at 6:25 A. M.; was bled to 500 grams (about 17 or 18 oz.). The patient can no longer see; she does not answer questions; complains greatly of pain in the head; she jerks out little groans; the uterus contracts at moments; fear is entertained that labor has commenced, yet no examination can be made for the reason that the finger cannot penetrate beyond of the labia majora; it is not possible to reach the neck of the uterus, to such an extent is there œdema of the vulva. I saw Professor Depaul make the attempt, but without success; he decided to wait; the fœtal heart is still heard to the right and anteriorly.

The following figures will exhibit the hours of the attacks:—

5:20, 6:25, 11:12, 11:20, A. M.: 12, M.: 12:43, 1, 1:40, 2:30, 3:30, 4, 4:29, 5:25, 5:59, P. M.; altogether she had fifteen attacks.

The thermometer indicated, at 8:30 A. M., 38° C., (102° F.) pulse, 140; 2:30, P. M., 38° C.; pulse, 128.

At 11:45 the foetal heart was no longer heard.

At 6 P. M. Professor Depaul, finding the dilatation almost complete, decided to deliver the woman with the forceps, the head commencing to engage at the superior strait. One hour before application of the instrument, Professor Depaul had punctured the external genital organs in order to favor the expulsion of the serosity; the labia had much diminished by that means. The forceps were applied; the head did not engage. M. Depaul then practiced craniotomy, compressing the head as much as possible, bringing it as far as the vulva; the shoulders not engaging, a loop of ribbon was placed around the neck of the foetus, and very strong traction made, the anterior shoulder presented behind the symphysis pubis, the arm disengaged, and the remainder followed. No attack during entire operation. The after-birth was expelled fifteen minutes later—natural. There is a slight tear in the perineum. At 10:30 P. M., the patient is still in a state of coma. No new attacks. March the 21st, in the morning, patient could comprehend, and answered slightly. Involuntary micturition. The pain in the head persists; the sight is not yet clear. On the 22d, patient passed a good night; by morning, intelligence had returned, as well as sight; urine yields very little albumin. From the 23d to 26th, condition continued the same; the right labia is still large; lochia fetid. From that date, state improved. A slight eruption on the sides of the nose and around the mouth disappeared spontaneously. Treatment: rum-toddy, and milk; strict diet during the first few days after confinement.

TRANSLATIONS.

From the French, with Remarks, by E. M. NELSON, M. D., St. Louis.

VAGINISMUS.

M. T. Gallard, physician of La Pitié, in Paris, considers that vaginismus is in all cases a symptom, not a disease. He believes that in a majority of cases it is possible, by careful examination, to determine the existence of inflammatory lesions, ulcers, fissures, or the like, and that the comparatively rare cases in which thorough and skillful examination fails to discover any lesion, are to be explained as cases of neuralgia. With this view of the pathogeny, he directs treatment, not to overcoming the muscular spasm, but to removing the disease, whether purely local, or dependent upon a general condition.

He says: "If there is redness or excoriations of the mucous membrane, I give the preference to iodoform, and formulate thus the ointment to use:

	Grams.		
R. Iodoformi,			
Ol. Theobromæ, āā	2	3. ss.	
Axungię Recentis,	15	3. iv.	M.

"If there is only pain without any apparent alteration of the mucous membrane, I prescribe

	Grams.		
R. Ext. Belladonnæ,	3	gr. xlv.	
Axungię Recentis,	15	gr. xlv.	M.

"In either case I direct to be made plugs of charpie, as small as they choose to commence with, and in order not to frighten the patient, I charge her with the making of them, instructing her to count the threads which enter into each of these plugs to be introduced into the vagina each night, after being anointed with one or the other of the two ointments mentioned above. If at first she uses the iodoform, she will be able, after a few days, to replace it by the belladonna, when the redness and excoriations or the eruption of the vulvar region has disappeared. Only, in either case, care must be taken to increase each day by an imperceptible amount, but previously determined, the number of

threads employed, 10, 12 or 15, for example. So we shall secure, after a time which will never be very long, the use of a plug of such size, that after having removed it, the place may be supplied by the virile member without the substitution causing any pain." He attributes the cure in these cases chiefly to the narcotic action of the unguents applied, though not denying that there may be advantage in the mechanical effect of the dilatation also.

He utterly condemns all use of the knife in such cases, unless possibly when the *carunculæ myrtiformes* are inflamed, swollen or ulcerated, when he would sometimes admit the ablation of these as a more speedy mode of cure than treatment by caustic only.

He observes that these cases are usually met with in young women newly married, or shortly after the first sexual approaches; that they occur specially in those predisposed to hysteria and of a lymphatic temperament. In explanation of this he says :

"Defloration, which consists in the rupture of the hymen, is an operation always painful to the young woman who submits to it. But the pain which it provokes is compensated by the voluptuous sensation which immediately succeeds. Suppose that this compensation fails, that this voluptuous sensation does not occur, there will remain only the impression of pain, the recollection of which will return when the act is to be repeated, and will excite apprehension the more vivid as the first operation may have been more painful. Continue your suppositions, and admit for an instant that the first attempt has not been followed by complete success; that the membrane, instead of being wholly destroyed, has been only chafed, and that intromission has not been complete; what will take place then? At the following attempts the pain will be more acute, the slight laceration of the membrane will be affected with inflammation, redness, and greater sensibility of the parts, such that the least touch will be intolerable. Then coition will become impossible; the woman, far from yielding kindly as the first time, will withdraw herself, will utter cries, will shrink at each new attempt, and, this state of excitement increasing, vaginismus will be established. This result will be the more rapid as the woman may be more nervous; that is to say, as she may be more apt to resent keenly painful impressions, and as she may desire more

intensely, the voluptuous sensations that are entirely wanting; it will be more inevitable as, by her lymphatic constitution, this same woman will be less disposed to rapid cicatrization of the chafing or ulceration resulting from the first unsuccessful attempt.

“So are the circumstances in a great number of cases. A young husband, whose ardor is usually stimulated by continence more or less prolonged, has scarcely entered the conjugal bed ere he desires, without other preliminary, to attain the end of marriage. But how many miscalculate their effort and see their ardor fail before being able to attain the desired end. They have scarcely had time to rap at the portal, and they have done it in a fashion so maladroit and so brutal, that for a long time they cannot expect it to open easily before them. The fact is, they have caused pain without having had time or opportunity to procure the contrary sensation which would cause it to be forgotten. Each new attempt which they make recalls this suffering, which causes more and more vigorous repulsion, and their efforts become more fruitless as their moral and even physical energy is found to be diminished by these repeated failures.

“What then should be done to escape these misfortunes? Only one simple thing: It is that the first effort should be calculated in such sort that it will admit the attainment of the desired end without hindrance, and that one should delay the attack rather than attempt it before being quite certain that he can penetrate at the first stroke to the centre of the place.

“I shall not pursue further a subject so delicate, which it was yet my duty to treat fully before you by reason of the great interest which it contains. The end which we pursue authorizes us, moreover, to touch upon subjects which would be absolutely out of place elsewhere, and before another auditory. But we are not in a parlor, and I have not before me a party of young girls just out of a convent. Yet it is these young girls of whom I am thinking at this moment; it is the happiness of their whole existence, often compromised by a maladroit entrance into life, that I would wish to be able to secure. Often their naïveté and inexperience are not much greater than that of the young man who at the same time with them enters into the world; and how indispensable is it that at the moment when they shall find themselves united by law, social customs and the

will of their families, as well as by their mutual affection, one of the two, at least, should be so instructed as to be able to give the lesson to the other. No one will question that this role of the instructor should belong to the man, and yet, by a strange inconsistency, it is to the woman that the instructions are addressed, while he is abandoned to his inspirations, which may be more or less fortunate.

"It is the mother who takes the young bride and gives her her last advice, while explaining to her what is about to take place. Why does not the father do so with the son? It is because it is supposed that the experience has come to him without advice or in spite of contrary advice, and that, as in the charming eclogue of Longus, so delightfully translated by Paul-Louis Courier, he has met by the way at least one beautiful Lycenion who will have effected his education, not only in a theoretic point of view, but in a fashion quite practical.

"But if this Lycenion has failed, who will replace her? Who will give the advice with which no one would know how to dispense in such a case. I have seen a man, very intelligent, and I may add, very well informed, whose inexperience in these matters was such that after two years of marriage he brought his young wife to me, inquiring why they had no children, ignorant that she was still a virgin and that it was necessary that she should cease to be so before becoming a mother.

"Besides these too artless youth, there are those who are not so, and who, too eager to enjoy their privileges, abuse them to the extent of claiming to overcome by rape the resistance offered by a modesty alarmed by a behavior which they consider to be of the best taste. These often enter by a rape into the common life, which ought to be all affection, courtesy and mutual consideration. It is a grave fault, of which they may have to bear the consequences heavily afterwards, and of which the least will be the not having spared a suffering which it should have depended upon them especially to lessen. Too fortunate if the recollection of this suffering does not give birth to an invincible repulsion which succeeds to it and persists when this has long since disappeared, giving place to a special form of vaginismus, which we may call vaginismus from moral impression or apprehension." * * * * *

"In every case, since this is never primitive, that which causes it should be avoided, and this can be secured if the husband

will observe the recommendations which it is appropriate to give him at the moment when he enters conjugal life.

“With this preliminary education of young husbands, the larger part of the cases of vaginismus which we have occasion to observe, will cease to be produced. As to others which may supervene under the influence of various causes, you are prepared to treat them as is fitting, and I believe I have sufficiently indicated, in the course of this lecture, the means of combating them in a manner promptly efficacious.” [*Annal. de Gyn., Avril, '79.*]

REMARKS.—No apology is necessary for presenting to the medical profession such a paper as the above translation from the French of M. T. Gallard, physician of the hospital of “La Pitié,” and one of the conductors of the *Annales de Gynécologie*.

The pessimist would have us believe that public morality has sunk so low that no man comes to the marriage-bed wholly inexperienced as to the processes of sexual intercourse; and it is no doubt true that the cases are exceedingly rare, in this country and European countries as well, in which such extreme ver-dancy exists, as in the case mentioned by our author.

Yet I think there are very few physicians of wide experience in general practice, who have not been called on repeatedly by young men about to enter the marriage relation, to give advice in regard to this matter. I am sure there are none who have paid special attention to diseases of women, who have not often met with cases in which extreme suffering and even serious disease might have been avoided, if the husband had obtained and followed the advice of a competent physician, instead of “abandoning himself to his inspirations.”

But it would seem that yet more is incumbent upon us as conservators of the health and happiness of our patients than merely to give judicious counsel when formally appealed to by them.

The relation of a physician to his patient is such as gives him a right to address him upon this most delicate subject; and inasmuch as it is true that fathers in this country are neglectful of the duty of instructing their sons in regard to the proper discharge of their sexual functions, we, as physicians, ought to assume the initiative, and *whenever any young man among our patients or friends is about to assume the responsibilities of married life, we should seek the opportunity of giving such counsel as he may*

need. Many a young man would be exceedingly grateful for such counsel, who yet refrains from seeking it, lest thereby he make confession of inexperience, which he has almost come to consider unmanly.

False views prevail largely among men in regard to the character and strength of the sexual passion in woman. In the vast majority of cases it is dormant and must be evoked; it has a potential rather than an actual existence. It should be the aim of the husband to secure that the enjoyment of sexual intercourse shall be fully shared by the wife; and to this end, perhaps, no one thing will more conduce than a little considerate self-restraint on his part at the commencement of their life together, and the delaying of the consummation until he shall succeed in eliciting such desire in her as shall make the pleasure of the act mutual. As physicians and medical advisers, it is our duty to impart information and give instruction in these matters.

Translations from the German, by E. EVERS, M. D., St. Louis.

CÆSARIAN SECTION BY PORRO'S METHOD.

The following interesting details of Hegar's case are reported by Dr. Dorff, in the *Centralblatt für Gynäkologie*, May 24, 1879. The operation was performed March 28, 1877, on a patient with lumbo-dorsal kyphosis and very much deformed pelvis depending upon it. After four days of inefficient labor, an eclamptic attack set in, which was cut short by narcotics but was followed by sopor, continuing for two hours. Even during pregnancy the urine contained large quantities of albumen, fibrinous casts and epithelial scales. An hour and a half after consciousness had returned, the operation was performed. On opening the womb, the breech presented, and a well-developed living girl was extracted. [This child left the institution two months after the operation, in good health.] The placenta was removed without much hæmorrhage; indeed, very little blood was lost during the entire operation. The escape of blood into the peritoneal cavity was prevented by separating the edges of the abdominal wound, carefully compressing the uterus, and by closing the incision in the latter by means of a sponge. The

uterus was then lifted out of the abdominal cavity and held at right angles to the wound. A double wire ligature was passed through the womb a little above the internal os by means of Pèan's curved needle, and the ligatures, which passed beneath the ovaries, were firmly secured by *serre-nœuds*. To insure greater safety, the chain of an *écraseur* was applied above the ligatures. Uterus and both ovaries were then removed. No hæmorrhage. The peritoneum having been carefully attended to, the abdominal wound was closed with ordinary wire sutures, and the stump secured in the lower angle of the incision by means of three lancet-shaped needles. Cotton pellets, saturated with chlorine water, were used as a dressing for the stump, and frequently changed.

With the exception of an irritating cough, the patient did well for the first two days after the operation. On the third day, however, septic peritonitis set in; rapid distention of the abdomen, violent pain, and extreme prostration. Double drainage was introduced into the space of Douglas, and a drainage tube inserted in each lumbar-region. A considerable quantity of an opaque exudation was discharged. The parts were well washed out with chlorine water. The collapse increased, and the patient died April 1st, at 4½ o'clock A. M. An examination (post mortem) revealed a moderate injection of the peritoneum, a moderately profuse exudation in each iliac region, no agglutination, and an excessive shrinking of both kidneys. The space of Douglas had been well washed out.

SERIOUS ACCIDENTS ATTENDING IRRIGATION OF THE PUERPERAL UTERUS.—BRUNTZEL.

Several cases of serious accidents occurring during the process of washing out the puerperal womb have been published by Richter (*Zeitschrift f. Geburtsh. und Gynäk.*, 1878, bd. 2), Küstner, Fritsch, Herdegen (*Centralbl. f. Gynäk.*, 1878, No. 14, 15, 16), and Veit (*Deutsche Zeitschrift f. prakt. Med.*, 1878, No. 33); to these must now be added a case which occurred in Spiegelberg's clinic, and which is the first case terminating fatally.

Patient was a secundipara, aged 27, who left her bed contrary to orders, on the fourth day. Fever at once set in, and the lochial discharges became offensive. On the evening of this day, and

the morning of the fifth, the womb was washed out with a 1 per cent. solution of carbolic acid; about one litre had been injected, when the woman turned up her eyes, groaned and became unconscious. The point of the syringe was at once withdrawn, and its withdrawal was followed by the discharge of a moderate quantity of thin, fluid blood. No pulse perceptible; respiration continued for five minutes longer. All attempts at resuscitation failed; the post mortem gave no clue as to the cause of death.

The author reviews the various theories advanced to explain the accident: detachment of a thrombus; entrance of air or fluid into the vein; carbolic acid intoxication. He rejects all these theories, and believes with Richter, that the accident is due to reflex action; sudden cessation of the heart's action depending upon the mechanical irritation of the inner surface of the womb.

Herdegen, who reviews this case in the *Centralblatt für Gynäkologie*, No. 10, explained his own case on the same theory, but thinks that, in view of the fact that in all cases reported the withdrawal of the syringe was followed by a greater or less discharge of fluid blood, the question as to the final cause of these accidents is not yet definitely settled.

The recommendation of the author to resort to intra-uterine irrigation only in urgent cases, is endorsed.

ON STERILITY.—RHEINSTAEDTER.

The connection between ovulation and menstruation.

The most favorable period for conception.

The author reviews critically the theories that have been advanced on this subject, and expresses his own thus: Although, undoubtedly, complete ovulation with rupture of the follicle may take place without menstruation, and although we must admit the possibility of menstruation without ovulation, yet menstruation must be regarded as the true symptom of a rupture of the follicle.

The hæmorrhage of menstruation is accompanied by a detachment of the superficial layers of the decidua menstrualis, which is formed before menstruation sets in, and which differs from the decidua graviditatis only in the small-celled structure

of the interglandular tissue. The hæmorrhage is not due to fatty degeneration of the decidua, but to acute hyperæmia of the uterus, which causes the superficial capillaries of the mucous membrane to rupture, especially as the venous canals for carrying off the blood are few in number. The regeneration of the mucous membrane begins immediately after the cessation of the hæmorrhage, and is completed about the time midway between two periods; this regeneration is immediately succeeded by the regeneration of the decidua menstrualis. The mucous membrane of the womb, before every menstrual period, is, therefore, prepared for the reception and fixation of the fructified ovum. If conception has not resulted before the menstrual period, retrograde metamorphosis of the mucosa takes place, accompanied by hæmorrhage; if conception has resulted, menstruation fails to appear, and the decidua menstrualis becomes the decidua graviditatis. If this theory is correct, our former method of calculating the duration of pregnancy from the date of the last menstruation must be modified accordingly.

Again, the time which the ovum requires to reach the uterus must be regarded as very much shorter than has been supposed hitherto, being only one, or at most two days. Finally, it follows that the most favorable period for conception to take place is the time shortly before menstruation. [Reviewed by Schellenberg, in *Centralblatt für Gynäkologie*, May 24, 1879.]

Translations from the German, by A. OSTERTAG, M. D., South St. Louis.

ILLUMINATION OF THE CAVITIES OF THE BODY BY A NEW INSTRUMENT.—NITSCHÉ.

Not a little sensation is at present excited in surgical circles by the invention of a new illuminating apparatus, by which the surgeon is enabled to illuminate all cavities of the body accessible from outside, as the bladder, stomach, rectum, etc., and inspect in such a manner that he may obtain the precisest view of the internal condition of the illuminated cavities. Repeated experiments made by Prof. Dittel, in the presence of eminent surgeons, on living subjects, have proved the extraordinary merit of the invention. Hitherto this apparatus has been

used for illumination of bladder, urethra and rectum, and has proved itself most excellent. One may see in the illuminated bladder the smallest piece of gravel, the smallest injected vessel. The operator has not to depend on his manipulations and his sense of touch; if he seeks for stone in the bladder, or treats any other vesical disorder, he will simply inspect and then be sure what the matter is. Suffice it to say that the stomach-illuminating apparatus will soon have reached completion; its success seems to be secured. The inventor, a Saxon physician, Dr. Nitsche, has been working now for three years on the perfection of his idea, and there seems to be no more doubt that he will be perfectly successful. The principle on which these new instruments are constructed differs from the old endoscopes in this, that the light is not thrown by a reflector from the outside into these cavities, but that the light-source itself is introduced by the instrument into these cavities, to the very spot intended to be inspected. The light-source consists of thin platina wire, made and kept white hot by galvanism. To prevent the instrument from growing warm by the glowing wire, a continual circulation of cold water around the wire is kept up. The arrangement of the water circulation and wire is different, according to the anatomical differences of the several organs, but always so that a perfect and equal cooling of the instrument is produced. In this manner are we enabled to illuminate the different cavities with a degree of intensity that has never been reached before. By use of a special optical apparatus we are further enabled to considerably enlarge the field of inspection, *i. e.*, it is then possible, through long and narrow tubes, to survey with one glance a large area, as by the use of this apparatus, a six to nine centimeter ($2\frac{1}{3}$ to $3\frac{1}{2}$ inch) area of the walls of the bladder may be surveyed with the greatest distinctness without moving the instrument.

Winer Med. Woch., No. 18, May, 1879.

CONTRIBUTION TO THE DOCTRINE OF PUTRID PLEURITIS.—
FRANKEL.

After a record and course of treatment of several cases of putrid pleuritis, Frankel sums up the results as follows:

1. Pulmonary gangrene is a very frequent cause of putrid pleurisy.

2. Gangrene as well as putrid pleurisy may have already existed for a considerable period without recognition of the first, or the latter betraying its true character by special clinical symptoms.

3. If, in the course of a rapidly-arisen pleuritic exudation, sooner or later gangrenous sputa are suddenly expectorated by the patient, this points with probability at putrid condition of the exudation.

4. Explorative puncture with Pravaz's syringe is in such cases of decided merit, for by it alone we are enabled to secure the diagnosis at an early stage.

5. If the result of puncture shows positive proof of putrid condition of the exudation, it is the task of therapeutics, by speedy opening of the diseased half of the thorax, (radical operation by incision), to give free exit to the putrid contents, and by application of energetic disinfection to prevent the further existence of putridity. Against a partial emptying of the exudation by the aspirator before undertaking the radical operation the physician is to be warned.

Berl. Klin. Woch. No. 18, May, 1879.

DIPHTHERITIC PHARYNGEAL PARALYSIS.

Dr. Heinrich Adler relates in the *Wiener Wochenschrift*, March 25, a rare cause of death in a case of diphtheria, occurring in a girl 17 years old.

The disease commenced on the 19th of January, and was progressing with the usual symptoms. The pharyngeal mucous membrane was very much inflamed, the tonsils and pillars of the palate were covered by a thick, grayish-white membrane. The sub-maxillary and cervical glands were much swollen and very painful. The power of deglutition was impaired, but no symptoms of paralysis were apparent. On the 24th of January, the fourth day, the disease seemingly progressing favorably, and the patient feeling strong and comfortable, she suddenly experienced a severe attack of dyspnoea, and in a few moments was dead.

On post-mortem examination, a large piece of bread was found impacted in the bifurcation of the trachea.

Dr. A. ascribes the cause of the accident to a paralysis of the constrictor muscles of the pharynx. The bread having

passed to the entrance of the œsophagus and lacking the propulsive power of the pharyngeal muscles, remained stationary and with the next inspiration, was drawn into the trachea. He mentions the occurrence of four similar cases, as noted by Tardeau, Peter, Mosler and Vogel. In regard to the cause of diphtheritic paralysis, he ascribes it not so much to the result of the local inflammation in the muscles, but more probably to a general affection of the nervous system, due to the diphtheritic poison, resembling in this respect, the paralysis of lead poisoning. In support of this view he cites two cases of Philippeaux and Trousseau, in which paralysis of the pharynx occurred as a sequence of the diphtheritic inflammation of the raw surface, caused by a fly-blister over the precordial region. In these cases there was no inflammation of the throat. G.

TROUSSEAU'S CATAPLASM IN THE TREATMENT OF SUBACUTE AND CHRONIC ARTHRITIS.

BY DR. DIEULAFOY.

Take a sufficient quantity of bread (more or less, owing to the size of the joints to be enveloped), cut into thin slices; remove the crust and soak the pieces about a quarter of an hour in water. The swollen pieces are then placed in a piece of linen, and the water squeezed out until the mass seems but slightly moist. It is next placed in a water-bath and allowed to remain for three hours. A portion of the water is again pressed out, and the whole is softened and kneaded for five minutes with camphorated alcohol. The dough is then spread out upon a piece of linen cloth large enough to cover the joint. At the edges the cataplasm should be at least one centimetre thick. Over the surface of the cataplasm the following mixture is poured: Camphora, 7 parts; Extr. Opil., 5 parts; Extr. Belladonnæ, 5 parts; Alcohol, q. s. The dressing is then fastened on by adhesive strips, and then covered with oil silk to prevent too rapid evaporation, and over the limb and joint a flannel roller is applied tight enough to exercise a comfortable compression. This is allowed to remain from eight to ten days, and if necessary, it is then re-applied.

Dieulafoy has tried this remedy with great benefit in a large number of cases, and commends it highly to the profession.—*Centralblatt für Chirurgie*, May 3, 1879, p. 289.—*Hosp. Gaz.*

EDITORIAL.

DR. A. J. STEELE, *Editor*.DR. W. A. HARDAWAY, *Associate Editor*PROF. E. W. SCHAUFFLER, M. D., *Corresponding Editor*.

"It is not so much what you ought to do, as what you ought to know not to do."—*Sir Benjamin Brodie, Lectures, 1837.*

SUNSTROKE—INSOLATION.

THE season of year is upon us when we may expect much suffering and not a few deaths from the effects of heat. Last summer, here in St. Louis, there were many cases, but thanks to a more rational plan of treatment than was in vogue a few years ago, fatal results were rare. The affection is to be dreaded, not only because it is occasionally fatal, but also on account of the sad sequelæ that so often follow it.

It is a disease of the nervous system induced by heat, usually following exposure to the direct rays of the sun, from which it takes its name of "sunstroke;" but as all cases are not due to such exposure, this designation is a misnomer. "Calenture" would be preferable (from *calere*, to be hot), for a continued high temperature, even in-doors, will produce it, as is seen in the effect on persons working in the confined, heated atmosphere of foundries, sugar-refineries, kitchens, laundries, on board vessels, and in barracks. Previous exhaustion of the system, from whatever cause, pre-disposes to it. Laborers suffer mostly, especially if of intemperate habits or of debilitated systems. In times past soldiers have suffered greatly; this was exemplified in our own late war. Men from the north, not accustomed to the extreme heat of the south, succumbed while on the march frequently. In a short march of ten miles, on an extremely hot day, we have witnessed one-tenth

of the men so affected. The heavy and tight clothing, together with the weight of the accoutrements, played an important part as factor in producing the disease. More judgment is at present displayed in the dressing of troops serving in hot climates, so that sunstroke is less frequent among them than formerly. The lamented Havelock hoped to prevent some of the evil effects of the direct rays of the sun by having the men wear white linen hoods with long capes.

Exposure to long-continued heat may be borne with impunity if the functions of the skin and bowels are active, but in cases of sunstroke the functions of the skin cease; thus the bodily temperature necessarily runs up, and the blood becomes impure; the bowels being constipated adds to the blood impurity. The frequent micturition is due not so much to renal activity as to the irritable urine.

The duration of the disease may vary—being fatal in a few minutes or in forty-eight hours. It is not the rule, however, that it ends in death; but with recovery, if incomplete, come sequelæ, such as impairment of the intellect, distressing headache, amaurosis and other evidences of cerebral trouble, such as twitching of the muscles of the forearm and hand.

The symptoms vary with the cause of the attack. In the cardiac variety the onset is sudden, with scarcely premonitory symptoms. The patient falls, pants for breath, and may at once expire from syncope. In the cerebro-spinal variety, the impending danger is indicated by heat and dryness of skin, temperature rising possibly as high as 107° F., vertigo, pain in the head, (not constant), congestion of eyes, tired feeling, nausea, frequent desire to micturate, in severe cases even delirium. If the patient is conscious of the approaching attack, he may lie down and pass into a comatose condition. If the case progresses unfavorably the pupils contract—with insensibility to light, the symptoms intensify, with possible convulsions.

The attack need not be mistaken for apoplexy, in which the pulse is slow, full, possibly intermitting; breathing

slow, irregular, explosive ; pupils dilated, irregularly ; skin cool, moist. In sunstroke the pulse is quick and sharp ; breathing rapid, noisy, but not explosive ; pupils contracted and conjunctivæ injected ; skin hot and dry, except in a few of the cardiac cases.

The superheating of the blood has a depressing effect on the nervous centres ; thus the cause of the symptoms as above given, and thus too, the index to treatment.

Prolonged insensibility, continued heat of skin, increasing congestion of the eyes, irregular and failing action of the heart, and lividity of the extremities, are unfavorable signs. Death may be preceded by convulsions.

After death the blood is found fluid ; possible congestion of the cerebral vessels, and congestion of the lungs with, in the cardiac variety, distension of the right heart.

Protection from the sun, the wearing of light and loose clothing, avoidance of stimulants and of prolonged exertion in a close, heated atmosphere, are all prophylactic.

In the treatment, blood-letting was formerly resorted to, never now, for we have not to do with cerebral apoplexy. The results of therapeutic measures at present are gratifying, where formerly they were too often serious. The patient should be placed in the shadiest and coolest spot to be found, stripped and doused with cold water over head and chest, followed up or repeated until the temperature of the skin is reduced, and the respiration more regular. If the skin is not hot, the use of the water may be limited to sprinkling the face and chest. Ice may be used to lessen the temperature of the water. Empty the bowels by enema, afterward injections of ice-water may be used. Apply ammonia cautiously to the nostrils. If the skin refuses to act, we would advise the fluid extract of jaborandi in 20-minim doses, repeated every half hour until three or four doses had been taken, to induce sweating. Bromide of potassium in ten-grain doses every twenty minutes, well diluted, should be given, and if necessary, by enema, in which case twenty grains may be administered. When exhaustion is imminent and the pulse weak, stimulants

must be used by either the stomach or rectum. In these latter cases the cold douche must be employed carefully, and only for its effect as a shock.

If sensibility be not restored, a blister to the nucha should be applied. Dyspnœa, when marked, may be relieved by application of dry cups to the thorax behind and in front. If convulsions set in, chloroform inhalations may be resorted to. After consciousness is restored, sinapisms may be applied to the nucha and to the mastoid regions, and the bromide should be continued for many days. Quietness should be enjoined, both of mind and body, and if possible, removal to a cooler climate. Regular habits should be insisted upon, without excesses.

Persistent headache frequently follows sunstroke as a sequel; in its treatment counter-irritation to the nucha, long continued, with a course of iodide of potassium, is often followed by benefit. A permanent residence in a cool climate, or at least removal to such during the hot season of the year, is of great benefit. Bathing of the skin, frictions, open-air exercise, regulation of all the functions, especially of the stomach and bowels, are quite essential.

A. J. S.

THE TREATMENT OF HEMORRHOIDS BY INJECTION.

This method of treating hemorrhoids constitutes the secret remedy, "without the use of the knife, ligature, or caustics," so largely advertised by quacks during the past few years. The secret has likewise been purchased by many previously reputable practitioners, in the fond hope that there were "millions in it." These gentlemen have usually been led to advertise their new possession in an unbecoming manner, thus making shipwreck of their faith, while, at the same time, they have failed to line their pockets. In order that the readers of the *COURIER* may, "without money and without price," be put in possession

of all the information so dearly purchased by others, we herewith give them extracts from a report on this subject made by Prof. Edmund Andrews, before the meeting of the Chicago Medical Society, April 21st, 1879, as reported in the *N. Y. Medical Record*.

It will be seen that while this method of treating piles is a legitimate surgical procedure, it is *not without danger*, and *not without pain*, as claimed by those who buy and sell the open secret.

In his paper, as reported by *The Record*, Dr. Andrews stated that "the substances generally used had been carbolic acid and olive oil. Later, glycerine had taken the place of olive oil. Some used the pure acid; others one part of the acid to 20 or 30 parts of the excipient. Ergot had been added by a few. Two used creasote and two persulphate of iron. The amount of fluid injected at one time had varied from 3 to 30 drops.

"He had accounts of 3,295 cases treated by injection. Nine were said to have died from the effects of the treatment, but five of these were so imperfectly reported that he was not certain they could justly be charged to it; the other four were authentic. Five cases of dangerous hæmorrhage occurred, five of hæmorrhage less dangerous; ten cases of abscess; twenty-three cases of sloughing, (generally of not more than the pile itself); eight cases of suspected embolism of the liver; one case of abscess of the liver; two of severe inflammation; two of stricture of the rectum occurred; while seventy-seven had violent pains, lasting sometimes for several days; six were dangerously sick in bed from two to six months; one had permanent impotence. One injection caused severe carbolic acid poisoning. * *

"The operation by injection was not painless in more than about one quarter of the cases.

"Of 3000 cases, one in sixteen was known to have suffered some disaster, varying in severity from severe pain to death. * * * * *

"Large injections were more likely to produce embolism, abscess and sloughing, but there was no proof of embolism of any other organ than the liver having occurred. *

“He thought the operation a proper one for certain cases. His conclusions were as follows :

1. The material to use is carbolic acid in oil or glycerine, one part to ten, twenty or thirty. If glycerine is used, morphine, chloral, or iodoform may be added as an anodyne. The dose for each injection should be two to four drops, and the interval between repetitions four to ten days.

2. The surface of the pile should be protected by an application of some oil, as vaseline, before the injection is made, so that any leakage of the material may not cauterize the surface. The injection should be made very slowly ; a very sharp needle should be used. The latter should not be withdrawn for some minutes after the fluid is forced in, lest leakage should take place.

3. Use this treatment for internal piles only, and inject only one pile at a time. Keep the patient in bed 8 to 10 hours after the operation, to avoid hæmorrhage.

4. The rectum may be firmly tamponed above the hæmorrhoids before the injection, to prevent the possibility of hepatic embolism, the tampon being allowed to remain 24 hours ; but this measure is hardly necessary when small and weak injections are cautiously introduced.

Finally, he said the operation was not as safe or eligible as that by the ligature ; but, with caution, was as good as any other method except the latter.” E. W. S.

COMPULSORY VACCINATION.—A meeting of a sub-committee of the City School Board was held June 26th, to decide, first, whether the vaccination of all school children was advisable, and second, whether it should be made compulsory. This committee was composed of the medical members of the Board, and they had invited the members of the profession generally, to be present for consultation or advice. Strange as it may seem, views were expressed in opposition to vaccination. In evidence, the following cases and statements were given : That a child had been twice vaccinated and yet had taken the small-pox ; a child had

been lost through small-pox, it having died of hydrocephalus; six children in one family had been vaccinated, and all were attacked with diphtheria, while three others not vaccinated escaped the diphtheria; no unvaccinated child ever took diphtheria (!); small-pox is not a specific disease—it came and went as any other epidemic, and vaccination had nothing to do with it.

On the contrary it was stated that all authorities urged vaccination and all institutions insisted upon it. The apathy of many Bohemians to vaccination was referred to—they regarding small-pox like the measles—a necessary evil.¹ Personal experience in a hospital was cited, showing that no case of miscarriage had occurred in pregnant women from vaccination. There were not recorded a dozen cases of transmission of disease by vaccination. Reference was made to English experience in proof of the efficiency of compulsory vaccination.

The opinion was overwhelmingly in favor of the necessity of vaccination. The authority of the Board to insist upon it was, however, questionable.

We are decidedly of the opinion that no child should be admitted to the public schools who has not been vaccinated. Further, that the people should in every way be urged to have their children vaccinated, but if they persistently hold out in refusal, then, that compulsion should be used.

Our city health department has been at great expense in procuring reliable animal vaccine virus, and freely distributing it to the profession; also, in offering to vaccinate without cost all so desiring, or who would submit. This has been a most judicious policy. If the department should meet with decided opposition among the people, it would be well to educate them in the truth of this subject by the dissemination of printed tracts, and through the public prints.

¹ By reference to our "New York Letter," in present number of the *COURIER*, it will be observed that the few deaths from small-pox now occurring in the metropolis are among the Bohemians.

CORRESPONDENCE.

NEW YORK LETTER.

Dr. John T. Darby, deceased.—Glue Jacket for Spinal Caries.—The Early Medical Men and Societies of New York.—All Physicians living in the County of New York required to become members of its Society.—Changes in College Faculties.—Small Pox.—Fifty physicians to be employed to visit and prescribe for indigent sick children.

Mr. Editor:—The profession in this city has suffered a great loss in the death of Dr. John T. Darby, who died on June 9th. He was born at Pond-Bluff Plantation, S. C., in the latter part of 1836. After pursuing a collegiate education in his native state, he attended a course of lectures at the Charleston Medical College, subsequently pursuing his medical studies in Philadelphia, where he graduated at the University of Pennsylvania, in 1859. The subject of his thesis was, "The Anatomy, Physiology and Pathology of the Supra-Renal Capsules." After serving as an hospital interne, he became assistant to Prof. Leidy, and commenced the practice of his profession in Philadelphia. When the civil war commenced, he returned to South Carolina, and was appointed surgeon in the Confederate army. He was surgeon to the Hampton Legion, and later on was medical director of the army in Virginia, occupying a position on Gen. R. E. Lee's staff. He had opportunities of studying in Europe, during the war, as he was sent abroad on a mission connected with the Medical Department of the Southern Army. He occupied a position in the Medical Department of the Prussian Army during the war between Prussia and Austria, in 1866. In 1868 he was elected to the position of Professor of Anatomy and Surgery in the University of South Carolina. He resigned this position in 1873 to accept the professorship of Surgical Anatomy in the Medical Department of the University of the City of New York. On the resignation of Dr. A. E. Post, he became Professor of Surgery, which he held until a few weeks before his death, being compelled to resign on account of failing health.

He then became Emeritus Professor in the same University. At the time of his death he was Visiting Surgeon to Bellevue and Mt. Sinai Hospitals in this city, besides being a member of several medical societies. His death was due, in part, to a poisoned wound, which he received some two years ago, in the pursuit of his studies. He was married to a sister of Senator Wade Hampton, of South Carolina.

Dr. A. M. Vance read a very interesting paper on "The Treatment of Spinal Caries and Lateral Curvature by a new Paper Brace, a substitute for the Plaster Jacket," before the New York County Medical Society, a few evenings ago. The following is the method of making the brace. An ordinary plaster jacket, of good length, is first applied, being careful to obtain a perfectly smooth surface. The plaster can be made to set more quickly by adding a tablespoonful of alum to a quart of water. The plaster jacket, when set, is cut down in front and removed. The cut edges are then brought together by means of twine, and the jacket made water-tight by plastering up the incision in front and around the base. Plaster mixture, of the consistency of thick cream, is then poured in until full. The external jacket may be removed in about ten minutes, and the cast smoothed off and greased. Over this a roller bandage is applied, cotton flannel is fitted smoothly over it by stretching tightly, and secured by a seam in the back. A glue is then applied, made as follows: White glue, one part; zinc oxide, 2 parts; hot water, 6 parts; dissolve the glue in the water and add the oxide of zinc. Brown manilla paper, about one and a half inches wide, long enough to reach a little more than half way around the cast, is applied horizontally, commencing at the bottom of the back, each one lapping half-way over the one below, each strip being previously coated with the glue. In the same manner the front of the cast is covered. Narrow steel springs, extending vertically, are applied about one and a half inches apart and kept in position by means of strong linen thread wrapped around each spring and passing around the cast. Another coating of glue is then applied, and a second layer of paper strips placed vertically, then another application of the glue. Finally, this is covered with a roller bandage, and the glue applied. In from twenty-four to forty-eight hours the jacket can be removed, by cutting down the front, and, after perforation with the number of holes deemed necessary, it is

ready for application to the body. The brace is secured in position by means of leather strips half an inch wide, with metal eyelets one inch apart, sewed half an inch from the edge in front and laced with double-lacing in the same manner as a corset. The brace is lined either with canton flannel, or linen, as may be desired. This brace, it is claimed, has the advantage of being very much lighter, and not so thick, as the plaster jacket. It is not impervious, and ventilation is secured by means of the perforations, while the strength is not diminished in consequence. It is said to fit more accurately than the plaster jacket. It can be applied, and re-applied, at will. It also costs much less.

Dr. A. E. M. Purdy, Vice-President of the New York County Medical Society, and for many years its Secretary, is at present editing the Minutes of the Society, from its foundation until the present time. Two parts have already been issued, and others will follow at intervals of about a month. When completed, it will furnish a pretty full history of the medical profession in New York City. In the minutes of the so-called Medical Society of the State of New York, founded in 1794, we find the names of Samuel Bard, first President of the College of Physicians and Surgeons, of this city; Wright Post, David Hosack, and several others, who held prominent positions here nearly a century ago. Dr. John Charlton was the first President, and Dr. J. R. B. Rodgers, the first Secretary; the meetings being held at the City Hall; the number attending was from ten to twelve, seven members constituting a quorum. The meetings were held quarterly, and were often adjourned for want of a quorum. From the proceedings, it appears that in those days (1795) the profession was annoyed by advertisements appearing in the secular papers, in which it was stated that the drugs furnished by a certain firm were inspected by the Society. By action of the Society, the offending advertisement was modified. The Society also appears to have acted as an advisory body to the Board of Health, in the fever epidemic of 1795-96. Fines were imposed upon members for non-attendance. We also find, in glancing over the minutes, that Dr. Lettsom, of London, was made an honorary member of the Society, in October, 1800. A Bill of Charges was adopted in July, 1798, bills being presented semi-annually. Among the charges, we find the following: Verbal advice, five dollars; letter of advice, ten dollars; an

ordinary visit, one dollar; a visit with a single dose of medicine, one dollar and a quarter; then follows a list of charges for various medicines, charges for special diseases—for curing gonorrhœa, from ten to twenty dollars; for curing confirmed syphilis, from twenty-five to one hundred dollars; midwifery charges, from fifteen to forty dollars.

The present Medical Society of the County of New York was founded July 1, 1806, under "An Act to Incorporate Medical Societies for the purpose of Regulating the Practice of Physic and Surgery in this State." Among the names of the incorporators are Nicholas Romaine, David Hosack, Wright Post, Edward Miller, and W. J. MacNeven, all prominent practitioners in this city at that time. Nicholas Romaine was the first President. A motion was made and carried, at the first meeting, to the effect that, "all physicians and surgeons resident in the County of New York, on the 1st Tuesday of July, 1806, and authorized by law, on or before that day, to practice their several professions, be declared *ipso facto et de jure*, original members of this corporation." The same resolution was made to apply to residents of Kings and Richmond Counties. Among the names of members are P. Turner, Physician and Surg'n Gen'l of the Revolutionary War; Samuel Nesbitt, Sr., native of Great Britain, and Assistant Surgeon in His Britanic Majesty's service, in the year 1764 to 1769; Walter Taylor, late Surgeon in the Navy of His Majesty, George III., the King of G. B. Another curious signature, or at least mark, is Thomas (his X mark) Dawson. Valentine Mott's name appears as Professor of Surgery in Columbia College and Corresponding Member Medical Society of London. He was admitted to the New York County Medical Society on January 5, 1807.

I might give several more extracts from the minutes, but think that the above will be sufficient to give your readers an idea of what is contained in them.

The President of the County Society is at present having all non-members served with personal notices requiring them to join the Society. This is in compliance with a law which directs the President of the Society to see that all non-members are personally served with notices; and, in case the person served does not join the Society, his license or diploma can be revoked. A penalty is recoverable against persons practising in this State without a diploma, and I believe that the County Society intend to carry out the law.

The following changes have been made in the medical faculties, which I omitted to mention in my last: Dr. A. A. Smith, becomes Lecturer on *Materia Medica* in Bellevue Hospital Medical College, in place of Dr. Wm. M. Polk. Dr. Joseph W. Howe, accepts the Clinical Professorship in the same college. Dr. Jas. L. Little, succeeds Dr. Howe in the University Medical College, as Clinical Professor of Surgery. Dr. T. G. Thomas, is Professor of Gynecology. Dr. J. W. McLane, Professor of Obstetrics. Dr. Thos. T. Sabine, Professor of Anatomy, *vice* Dr. H. B. Sands, whose new position was mentioned in my last letter. Dr. W. T. Bull becomes Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons.

An occasional case of small pox makes its appearance among the Bohemians, it being found very difficult to induce them to submit to vaccination. An appropriation of five thousand dollars has been asked for by the Board of Health, to engage the services of fifty physicians for one month, to visit the houses of poor sick children and prescribe for them. This course has been adopted for the past three years, and has heretofore proved beneficial in reducing the mortality among children.

C.

New York, June 25, 1879.

PHILADELPHIA LETTER.

The Medical Libraries of Philadelphia.—Preliminary Examination at the University Medical School.—Legacy of the late Prof. Geo. B. Wood.—A Second Physician elected a member of the National Academy of Sciences.—Death of Dr. Maury.

Mr. Editor:—The medical libraries of Philadelphia are a just object of pride on the part of the profession of this city. Until within the last few years, they outnumbered, in volumes, the medical libraries to be found elsewhere throughout the country, and even now the Library of the College of Physicians is second only to the National Medical Library at Washington. The Library of the College of Physicians was founded in 1788, and has since had what may be termed a chequered existence. At times the object of solicitude and attention on the part of the members of the College, its numbers would for a while augment

with considerable rapidity, and then, for long periods, the books stood idly on the shelves, uncared for and unconsulted. The first mention of the numerical strength of the library is in 1836, when it only included 291 volumes all told. Within the succeeding twenty years, the collection grew more rapidly, as by 1856 it was found to number 1,700 volumes. From this time, a new interest seems to have been aroused; donations and legacies added rapidly to the number of volumes on the shelves, and by 1865 the library numbered about 4,500 volumes. In 1865, an event occurred, in the form of a donation from Dr. Samuel Lewis, a wealthy physician of this city, of about 2,500 volumes, *en masse*. These were, by order of the College, placed in a separate apartment, to be preserved together, under the name of the "Lewis Library." Its generous donor has since then constantly added to the number of books, by careful personal selections and donations, until now, a library within a library, it forms perhaps the most perfect collection of medical works, in the respect to elegance and variety, in the country. The entire number of volumes in the Library of the College of Physicians is at present about twenty thousand. These are kept in the second story of the College Building, a plain and unpretentious fire-proof structure of brick, situated at Thirteenth and Locust streets, in the heart of the city. The library is open daily, between the hours of 11 and 3, to all physicians, whether members of the College or not. During these hours, the courteous librarian, Dr. Bridges, is in attendance, and the visiting stranger, on introducing himself, will receive due attention at his hands. The main collection is quite rich in journals, domestic and foreign, and contains an almost unique collection of theses, besides many antique and curious volumes, illustrating the early medical literature of this country. Among the curiosities may be mentioned a number of pamphlets by early American physicians, some published by Franklin when a printer in this city; others, of a later date, on the yellow fever and on the introduction of the then recently-discovered method of vaccination for small-pox. The books in the "Lewis Library" are valuable and interesting, apart from the intrinsic worth of their contents. There are no re-prints among the modern works, every book being of an original edition. Many are extremely rare, and some unique. Many of them are very handsomely bound, and some of the older and rarer volumes have

been bound under Dr. Lewis' supervision, in London and Paris, and are marvels of taste and elegance. In connection with the collection of medical books belonging to the College of Physicians, there is also a library of works on philology and natural science, known as the "Ord collection." Of late years, the library has been the recipient of a large number of current periodicals, the gift of the "Journal Association of the College of Physicians," for the purpose of creating, by private subscription alone, a fund for the purchase of foreign and domestic current medical literature, which, after being left on a special table in the room of the college for a sufficient length of time, is to be given, in complete volumes, to the library. Strange to say, no catalogue to this large library exists, and it is, in consequence, only partially available for purposes of study. Measures are about being taken, however, to remedy this defect, and before long we may hope that the treasures of our chief medical library will be opened to the fullest possible extent for the purposes of the student. Among the not strictly literary ornaments of the library may be mentioned a series of oil portraits of the deceased officers and fellows of the college, a goodly array of handsome and intellectual faces, from the bewigged anti-revolutionary worthies, to the portrait of yesterday.

The library of the Pennsylvania Hospital, which is next in importance to that of the college of physicians, numbers between fourteen and fifteen thousand volumes. Its origin is ante-revolutionary, the first book having been placed upon its shelves so long ago as 1762. One of its earlier patrons was the famous Dr. John Lettsom, who was accustomed to write his name: Johannes, or i. Lettsom. His practice was of so heroic a character as to give rise to an epigram, which, if my memory serves me, ran as follows:

"When folks to me for treatment comes,
I physics, bleeds and sweats 'em;
If, after that, they choose to die,
Why, then, d'ye see—i Lettsom."

Dr. Lettsom was a good friend to the library, and, in connection with Dr. Forthergill, was the means of adding a large number of valuable books to it. For many years, the fees exacted from medical students attending the clinical lectures given in the hospital were devoted to the maintenance of the library, the sums expended rising at times to as much as a thousand

dollars in the course of a single year. This source of revenue has failed entirely within the last few years, and at present the growth of the Pennsylvania Hospital Library has almost ceased. Perhaps it is as well that this should be so, since the books are of little use to any one. For some reason, the library is not a popular resort. In fact, it is only open to the general profession one or two hours in the week, and books may only be taken out on deposit of a sum of money with the librarian. Why the library is kept up at all it is difficult to say. I suppose because it has always been there; for this un-American and old-world argument has great weight in that time-honored institution. The books are only rarely duplicated in the collection of the College of Physicians, and if the two libraries could be brought together the result would be such a store of medical lore as could hardly be matched elsewhere. Space fails me to tell of this interesting library, of its profusion of magnificent folio works on anatomy and operative surgery, of its complete sets of journals and transactions, of its black-letter and illuminated editions of the older writers, some dating back almost to the origin of printing. Should any of your readers who have a taste for the venerable, which is such a rarity in our country, come to Philadelphia, they may find ample food for antiquarian curiosity in this old library, and in the Hospital which contains it.

The third public medical library of Philadelphia is that of the Philadelphia Hospital, a city institution. In 1836 this library numbered some three thousand volumes. Although yearly sums have been devoted to the replenishment of its shelves, yet now, forty years later, it remains of the same size. Carelessness and vandalism have kept it just where it was. The Philadelphia Library contains several thousand medical works, mostly of the sixteenth, seventeenth and eighteenth centuries; among them Dr. Mitchell found, a few years ago, a copy of Harvey's work upon the circulation of the blood—a presentation copy to Dr. Willis, with the great physician's autograph. I dare say many a similar object of interest might be found in this venerable collection, which however is buried among the hundred thousand volumes composing the general library.

In addition to these larger collections, there are smaller libraries belonging to the Obstetrical Society and to some of the Book Clubs throughout the city, so that the medical men of

Philadelphia may be considered well provided with intellectual food. But I do not think we can boast many erudite members of the profession—it is not the fashion as it was here of old, and we have not attained the connoisseurship of our New York and Boston brethren in collecting complete libraries on special subjects. One of our best private libraries, that of Professor Stillé, has recently been presented by its generous owner to the University of Pennsylvania. This library, numbering several thousand volumes, is especially rich in works on materia medica and therapeutics.

Speaking of the University reminds me of the recent promulgation of the new requirements for matriculation. In 1880, and thereafter, the student who desires to pursue a medical course will be required, (unless he has received a collegiate degree): *First*, to write a brief essay, not exceeding a page of fools-cap, which will serve as a test of his qualifications in orthography and grammar. *Second*, to undergo an examination in the elementary principles of Physics as contained in Fowne's chemistry. *Third*, to pass an examination in easy Latin prose translation, (*First Book of Cæsar's Commentaries*). In lieu of Latin any language other than English may be substituted. This is not a very severe examination, but it is the thin end of the wedge, and will doubtless be increased in stringency as rapidly as may be.

The legacy of the late Prof. Geo. B. Wood has not turned out to be as large as was expected. Nevertheless, it is a great aid to the University, and will help to give it the firm financial foundation which will permit the various reforms contemplated to be pushed to their legitimate conclusion.

One of our fellow-townsmen, Prof. Horatio C. Wood, has just received a well-merited honor in being elected a member of the National Academy of Sciences. This is a distinction which has but once before been bestowed upon a practicing physician, the recipient having been Dr. S. Wier Mitchell.

In the recent death of Dr. Maury, Lecturer on Venereal Diseases in the Jefferson College, the profession in this city has lost a prominent member. Dr. Maury was a young man of remarkable talent, a brilliant lecturer, and very much beloved by his students.

X.

Philadelphia, June 20, 1879.

BOOK REVIEWS AND NOTICES.

ON DISEASES OF THE ABDOMEN, Comprising those of the Stomach and other parts of the Alimentary Canal; Œsophagus, Cæcum, Intestines and Peritoneum. By S. O. HABERSHON, M. D., Lond. etc. Second American from the third enlarged and revised English edition. Philadelphia, Henry C. Lea, 1879.

Under the above title we have before us an octavo of 545 pages, constituting quite a valuable contribution to the subject under consideration.

As curator of the museum, demonstrator of morbid anatomy, and lecturer on clinical medicine at Guy's Hospital during a series of years, Dr. Habershon enjoyed peculiar advantages for working up his subject, which he has done in the most admirable manner. The former editions of his work being exhausted, considerable time has been spent by the author in the revision of the entire work, and the addition of several chapters on important subjects, toward all of which the later records of Guy's pathological department have been laid under contribution.

The diseases of the Mouth, Throat and Pharynx, are quite fully discussed in two chapters, strictly surgical affections being excluded. The chapter on diseases of the Œsophagus contains many interesting cases, some of them obscure in their pathology, and very insidious in their origin. Some instances of ulceration perforating the trachea or bronchi, are described, such as have generally, but in the opinion of the author incorrectly, been regarded as cancerous in their nature. Thirty cases of diseases of the œsophagus are narrated in detail, almost all of which have the report of an autopsy attached, thus leaving no doubt about the diagnosis and constituting a very instructive though somewhat mournful series.

The diseases of the stomach, both organic and functional, receive a considerable share of attention, and seem to have been a subject of special interest to the author. He believes that there are forms of superficial and evanescent ulceration in the stomach which leave scarcely any more trace on its mucous

membrane than does aphthous ulceration on the mucous membrane of the mouth. In his opinion there are many more cases of gastric ulcer that yield to proper treatment than is generally supposed. Over forty cases of every variety of organic disease of the stomach are briefly narrated.

The chapters on Gastro-Enteritis and Enteritis, as well as on Dysentery and Catarrh of the Colon are elaborate and excellent.

In discussing the very interesting questions of organic obstruction of the bowels, internal strangulation, intussusception, and carcinoma of the intestines, some valuable hints are given with regard to differential diagnosis. In speaking of the treatment of this class of troubles the author says: "If, after the administration of mild aperient medicines, or even without their use, it has been ascertained with tolerable certainty that constipation from one or the other of the causes we have described exists, it is exceedingly unwise to employ active treatment. Purgatives of all kinds are better avoided, and the use of drastic measures will tend to aggravate the sufferings, to shorten life, and to remove the possible chances of recovery." The opium treatment is advocated as being most appropriate on all accounts, and the best means of procuring relief to the bowels if an action be possible.

It is not practicable, within the limits of a brief notice such as this, to call attention to all the excellences of Dr. Habershon's work. One of its points of special interest lies in the narration of one hundred and ninety-two illustrative cases of abdominal disease, together with a descriptive index of the same. Taken altogether, this is one of the most satisfactory books we have had in hand for a long time, adapted alike to the wants of the medical student and practitioner.

E. W. S.

DEMONSTRATIONS OF ANATOMY; Being a Guide to the Knowledge of the Human Body by Dissections. BY GEORGE VINER ELLIS, Emeritus Professor of Anatomy in University College, London. From the Eighth and Revised English Edition. Profusely Illustrated. *Philadelphia: Henry C. Lea.* 1879. Price: Cloth, \$4.25; leather, \$5.25. (Through St. Louis Book and News Co.)

The author calls attention in his work to the bony eminences, and the natural depressions and irregularities, contour of the part and their relation to important subjacent structures, and gives detailed directions for such systematic dissections as will

reveal in successive layers the nerves, blood-vessels and muscles of a part, in their proper relation to each other. Fixing the attention of students of Anatomy to the relations of the various prominences of the body—to parts important to the physician and surgeon—should be of great practical value, and there is no place where a student or practitioner can so well fix these relations on his mind as in the dissecting room. The author's work in this particular adds to the value of the book, although I do not think he has succeeded in putting them in so clear and forcible a manner as has been done by Holden, in his *Landmarks, "Medical and Surgical."* It is certainly an advantage to the dissector to have a book which describes connectedly nerves, blood-vessels, muscles, lymphatics, ligaments and the bony eminences of a part being dissected, without being obliged to refer to different chapters under the various structures enumerated for their description. The anatomical descriptions in this book are arranged in conformity with the dissections in region, and the structures encountered are described only to such extent as they may be exposed. I think the book is too prolix for the dissecting room, but its plan is good, and it will prove valuable to the exact and careful student of anatomy. It is profusely illustrated, and the plates clear, well defined and not encumbered with confusing and useless details. It is an octavo volume of 700 pages, with 256 illustrations, and will be much used in the dissecting room. H. H. M.

1. *ATLAS OF SKIN DISEASES.* BY LOUIS A. DUHRING, M. D., Prof. of Skin Diseases in the Hospital of the University of Pennsylvania, etc., etc. Philadelphia: J. B. Lippincott & Co. 1879.
2. *PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES.* BY GEORGE HENRY FOX, A. M., M. D., Clinical Prof. of Dermatology in the Starling Medical College, Physician to the N. Y. Dispensary, Department of Skin and Venereal Diseases, etc., etc. New York: E. B. Treat & Co. 1879.

1. We have received Part V. of Duhring's superb Atlas, containing plates of Scabies, Herpes Zoster, Tinea Sycosis, and Eczema (Vesiculosum). This Atlas has now been so long before an appreciative profession, and has been so enthusiastically received on all sides, both here and abroad, that it needs no general recommendations at our hands in this period of its existence. The especial features of this fasciculus fully bear out the reputation of its predecessors; each portrait is a faith-

ful, well drawn, and well colored likeness of the particular disease it is made to represent.

2. Dr. George Henry Fox's *Photographic Illustrations* are quite a new departure in Pictorial Dermatology, and, judging from the specimens now on our table, it is one that will be sure to gain the admiration and hearty support of all interested in the study of cutaneous medicine. The photographs are on heavy card-board, 10 x 12, taken from life by a new process, and laboriously colored by hand. The work will be completed in twelve monthly parts, each part consisting of four plates printed from the original negatives. The method of photography employed seems to do away entirely with the objections formerly urged against that means of illustration, as it is claimed that the process renders the pictures indelible, and there is no doubt that the especial features are brought out more clearly and sharply than is usual. All of the photographic illustrations that have hitherto fallen under our notice have been complete failures; if uncolored, they were scarcely suggestive of their intention; and if colored, they were equally unrecognizable daubs. Dr. Fox has brilliantly overcome these various faults, and has given us a series of pictures of the utmost beauty and real utility. There could be nothing more accurate, both for lesion and color, than the *acne vulgaris* in Part I. and the *rosacea* in Part II. As to the comparative merits of photography of this sort, and hand-colored, and the beautiful specimens of chromolithography in *Duhring's Atlas*, it is hard to speak without further observation; and we shall therefore content ourselves with the reflection that it has been left to American dermatologists to issue two of the most magnificent atlases of skin diseases yet published.

W. A. H.

A GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By ROBERT FARQUHARSON, M. D., Edinburgh, F. R. C. P., London, Lecturer on *Materia Medica* at St. Mary's Hospital Medical School, etc. Second American Edition. Revised by the author. Enlarged and adapted to the U. S. Pharmacopœa, by FRANK WOODBURY, M. D., Physician to the German Hospital, Philadelphia. *Philadelphia: Henry C. Lea, 1879.*

We have been much interested in reading Farquharson's *Guide to Therapeutics and Materia Medica*, edited by Dr. Woodbury and published by Henry C. Lea. Judging from the editor's preface, the title of the original work did not include the words "*Materia Medica*," and we think it would have been better to

have omitted these words from the American reprint, for they are apt to mislead the purchaser, inasmuch as he will not get what, from the title, he has a right to expect. Surely, the lists of drugs and preparations in this book are not enough to warrant the title. We might as well call an alphabetical list of English authors, with the names of their principal works, a Treatise on English Literature. Moreover, the lists of preparations are foreign to the rest of the book, the text not speaking of them at all. It would have been better to have said a little more in regard to the choice of the different preparations for administration, since it is not always immaterial in which form a drug is given to the patient. If it is intended by the American title, to assert that the work contains enough *Materia Medica* for the use of the medical schools, we must protest against such implied assertion. It is a fault of many text-books, which have lately appeared, as well as of the courses of lectures delivered on *Materia Medica* and Therapeutics, that *Materia Medica* is neglected. A text-book on *Materia Medica* should teach, at least, how to identify a drug and determine its purity or quality, so that the student may know the agents he will have to dispense.

We are not favorably impressed with the introduction of formulæ in works of this kind; but, if they were deemed necessary, the American editor would have deserved thanks if he had translated the old and almost obsolete Latin signatures into plain English. Such forms as on page 190, "*misce, fiat mistura* (unnecessary repetition), *cujers sumat semunciam post singulas dejectionibus liquidas,*" are not understood by all the readers of the book; they are never employed by physicians in this country, and if employed, would not be understood by many druggists, who will write, instead, "*use as directed.*" At all events, the signatures should be either all Latin or all English, and not mixed, as in several formulæ (pages 333, 359, etc.)

The decimal, or metric system of weights, is employed in this book, together with the more usual system of weights. This is good; but the prescriptions might have been better, if, instead of exact equivalents of troy weight, only approximately corresponding values had been written, thus rendering the metric prescriptions more elegant. The numbers should be multiples of 5 or 10, if possible, and in large quantities of 25 or 50. In the following prescription (p. 369),

	Grams	
R. Potassii Iodidi,	2.60	2.50
Spiritus Ammoniaë Aromatici,	16.	15.
Syrupi Aurantii,	32.	30.
Decocti Sarsaparillæ Compositi ad.,	256.	250.

—the second column of figures would be much better than the first, which is copied from the book.

The Therapeutics in the book are excellent, and the arrangement of physiological and therapeutical actions and effects, in parallel columns, helps to render the study very simple and easy. It is to be regretted that the space devoted to the consideration of this part of the subject is so limited in regard to some drugs. Thus, the list of sodium and its preparations occupies more than a page, while the effects and uses of the whole class of sodium preparations are disposed of in less than three-fourths of a page. The author occasionally does not render his statements very clear, or he did not wish to express a positive opinion. We fail, for instance, to understand what the author's view is in regard to the action of mercurials on the liver. Do they increase the flow of bile or not?

It must not be thought, because we have pointed out some of the features of the work which we consider faults, that there is nothing good in the book. On the contrary, the volume is full of excellent teaching and sound practical instruction, and the physician who wishes to review the subject of Therapeutics, will find this a valuable and interesting work to read. It will repay liberally for the time and money spent. It will be of great value to the medical student, especially if his means do not limit him to one work on *Materia Medica* and Therapeutics. While there are other works which we would prefer for the use of the student, there are some, also, which are much less valuable to him. A perusal of this book will certainly benefit any one who will study it carefully, as he reads. O. A. W.

HEARING, AND HOW TO KEEP IT. BY CHAS. H. BURNETT, M. D., of Philadelphia, Consulting Aurist to the Pennsylvania Institution for the Deaf and Dumb, Aurist to the Presbyterian Hospital, etc. 16mo., pp. 152. Price, 50 cts. Philadelphia: Lindsay & Blakiston. 1879. (*St. Louis Book and News Company.*)

This is the first of a series of American Health Primers, edited by W. W. Keen, M. D., and being published by Messrs. Lindsay & Blakiston, Philadelphia. The Publishers, in their announce-

ment of this series, stated that it would be their object "to diffuse as widely and as cheaply as possible, among all classes, a knowledge of the elementary facts of Preventive Medicine, and the bearing and application of the latest and best researches in every branch of Medical and Hygienic Science. It was not intended, (save incidentally), to assist in curing disease, but to teach people how to take care of themselves, their children, their pupils, and their employés." We welcome this enterprise of the publishers, and commend it as being in accordance with the best spirit of the profession.

Dr. Burnett, who has contributed this little volume is well known as the author of "A Treatise on the Ear." There could scarcely have been selected one more competent for this task. He has brought to the accomplishment of it a rich experience and a rare good judgment. There is certainly no subject upon which the general public need more to be informed than the one here presented. There exists a lamentable degree of ignorance concerning the care which should be taken of the ear (in health and disease), even among people otherwise intelligent, which is often fraught with the most serious consequences to individuals and to communities.

The subject is divided into three parts. I. Anatomy and Physiology of the Ear. II. The Chief Diseases and Injuries of the Ear, and the Avoidance of their Improper Treatment. III. General Hygiene of the Ear. The work is accurate, concise, necessarily brief—it is clearly and concisely written. The style is agreeable. We have read it with much pleasure and profit, and commend it to the profession as well as the public. H. N. S.

LONG LIFE AND HOW TO REACH IT. By JOSEPH G. RICHARDSON, M. D., Professor of Hygiene in the University of Pennsylvania, etc. *Philadelphia: Lindsay & Blakiston*, 1879. 16 Mo. pp. 160. Cloth. Price 50cts. (St. Louis Book and News Co.)

This is the second of the series of Health-Primers now being edited by Dr. Keen, and, though it is intended for popular reading, still, the members of the profession, as conservators of the public good, are interested in its circulation and endorsement.

The size and style of the Primer are admirable for family use, and we would advise it to be placed in every sitting-room library. The substance of the subjects treated of are pretty generally known to the educated, but are not made practical use of. If every mother and guardian of the young should

instruct those under their charge in these simple laws of hygiene, one-half the necessity for the family doctor and expensive summer tours would vanish. The chapters on "The House and How to Build It," and "Congation," are especially important, as, perhaps, less understood or considered by the people at large. There are popular notions in regard to clothing and bathing which, if dispelled by the knowledge here found, would add immeasurably to the comfort, health, and even life, of the people. The subjects of exercise and diet, as here treated, are very valuable, and the ignorance of the community in these matters is only too visible in the deformed bodies and bloodless cheeks of many of our youth. Young misses spending time and strength over the sensational novel, unfitting both mind and body for the practical duties of life, which must sooner or later devolve upon all, would do well to substitute the Health-Primer. Both mental and physical beauty would be the result, the want of which is too often supplied by sickening affectation and poisonous cosmetics. It is true, that the physiology taught in the schools contains very much of the truth given here. But experience has convinced us, that the majority of students go over the subject without a thought of its practical importance. The light, readable, attractive manner in which the Primer sets before us matter so truly important, might, by a little tact on the part of mother or intelligent nursery-governess, be made interesting to even the child; healthful habits being thereby formed, without thought of *ennui*, that would bless a generation. Sickly men and women are a curse to the family, to the nation, to humanity. What a heaven might this earth become could our happy, merry, healthy children develop into vigorous fathers and mothers, living noble and useful lives, to die at length of old age, instead of languishing the years away, a burden to themselves and all with whom they come in contact! We gladly recommend the book, and hope the good intended may be subserved. C. L. S.

THE DEATH RATE OF ST. LOUIS. The cause of its being less than that of any other Large City of the United States. BY CHARLES A. TODD, M. D., Professor of Physiology, etc., Missouri Medical College. *St. Louis: G. I. Jones & Co., 1879.*

The author of this pamphlet has gone fully into the determination of the causes and modifying circumstances of the low death-rate of St. Louis, showing that the natural situation of the

city, supplemented by wise engineering art, has per force made it to be healthful.

The rolling and elevated topography, the swift-running river, the clay soil and lime-stone substratum, the well-planned and extensive sewerage, the great abundance of river water liberally furnished to and used by the inhabitants, the spread of the city over a large territory, avoidance of crowding of houses, are all fully dwelt upon as factors in the percentage of disease in St. Louis.

We expect the brochure will do much to convince the skeptical in certain quarters that our comparative low death-rate is not all brag. Some one place among all the cities must be the healthfulest. Why may it not be St. Louis? A. J. S.

BIBLIOTHECA DERMATOLOGICA. Catalogue of Cutaneous Literature in the Library of HENRY G. PIFFARD, M. D., Prof. of Dermatology in the University of New York. *New York*, 1879.

Dr. Piffard has conferred a great favor on those engaged in the practice and study of dermatology, in publishing the titles of his own extensive collection of works on cutaneous medicine. The list comprises books, brochures and journals in all languages, and includes many rare and valuable editions. Dr. Piffard's library must be a paradise of delight to the bibliophilist. It is the author's desire to purchase such dermatological works as owners may wish to sell. He intends at no distant day to publish a still more complete bibliography. Under the head of scleroderma, we miss Van Harlingen's able paper on the subject, which includes an extensive and valuable reference list of writers on that disease. W. A. H.

AN ACCOUNT OF THE PERINEOSINUEXEREEINATOR. A new instrument for the exploration of sinuses. Especially adapted to gynecological practice. By JACQUES ROBINSON, A. M., M. D., Surgeon to the Hospital for Ruptured Vesicles; Member of the Anteversion Society and the Round Ligament Club, etc., etc. [Reprint from *Louisville Medical News*, May 13 and June 7, 1879] *Louisville, Ky.*: John P. Morton & Co., 1879. (With the compliments of the author.)

[This is so good a satire, we re-produce the entire "work," comments being needless.—ED.]

A NEW INSTRUMENT.

To the Editor of the Louisville Medical News:

I desire to call your attention to a new instrument which I have had the honor to devise, and through your columns to claim priority in its invention.

That I may be just to all parties, I may first state what were the evolutionary stages through which my instrument passed before it reached its present perfected shape.

Some years since—the exact date has escaped me—Dr. Smithe, the eminent gynæcologist of Jonesville, gave to the professional world his since celebrated probe, a figure of which accompanies my text. This instrument has been known as the

(GEMRIG.)

THE SMITHE PROBE.

Smithe probe. It is three inches long, about the size of a knitting-needle, and is made of white metal. It has served an excellent purpose in the exploration of perineal sinuses; but it soon became evident that for sinuses which exceeded three inches in length, the "Smithe Probe" would not do. We are indebted to the genius of Dr. Jones, the renowned uterine pathologist of Smithville, for a solution of this difficulty. Dr. Jones modified the Smithe instrument so as to make it *four*

(TIEMANN.)

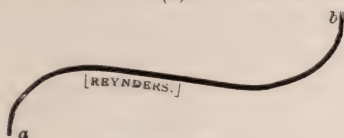
THE JONES MODIFICATION OF THE SMITHE PROBE.

inches long instead of three, thereby allowing sinuses of increased depth to be examined.

This was a great improvement, but the instrument was not yet perfect. Both the Jones and the Smithe instruments were confined in their operations to sinuses which were perfectly straight, and this fact led that obstetrical wonder, Dr. Brown, to devise an instrument which could be used in the exploration of sinuses which were deflected from a direct line. Dr. Brown also bore in mind the important fact, which was demonstrated by the Viennese school, that sometimes the sinus runs up and sometimes the sinus runs down. To meet this double difficulty, he constructed a probe which, upon its right extremity ascends in a gentle curve, while upon its left extremity it descends in a similar manner. The accompanying diagram will illustrate these peculiarities perfectly, and will also show the capacity of the instrument for deflection from the normorectal direction. In

diagram 3 *a* represents one end of the probe and *b* the other. The other figures explain themselves.

(3)

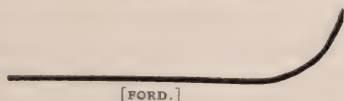


BROWN'S MODIFICATION OF THE JONES-SMITHE PROBE.



It might have seemed, with these instruments before the profession, that hardly anything more was to be desired for the convenience of the gynæcologist; but my experience, which is by no means limited, has taught me that there are still objections to be urged to each of the instruments named, and I have endeavored—and I think that you will allow I have succeeded in my endeavor—to combine in one instrument the excellences of all, with the imperfections of none.

The Smithe instrument was too short, the Jones modification was too straight, and the Brown modification was too curved, and, as will be seen at a glance, can be *only* used in deflected sinuses. I have, therefore, after much experimentation, constructed an instrument after the pattern in the accompanying



ROBINSON'S MODIFICATION OF THE BROWN-JONES-SMITHE PROBE.

diagram, which, it will be seen, is curved at one end and straight at the other. If the sinus is straight, then the straight end is used; if the sinus is curved, the curved end is used. If it point upward, the curve is pointed in a similar direction; if it point downward, the curve is simply reversed (Q. E. D.) So, also, I

have caused my instrument to be made of two sizes—one three inches long, the other four—that it might cover the same field with the Smithe instrument and the Jones modification.

I trust, Mr. Editor, that with this showing there will be no gainsaying that I have made a real advance in our art, and that hereafter no one will endeavor to claim my invention.

J. ROBINSON, M. D.,

*Surgeon to the Hospital for Ruptured Vesicles,
Member of the Anteversion Society,
the Round Ligament Club, etc.*

Brownsville.

ILLUSTRATIVE CASES.

Since preparing for print an account of my new instrument—which I have named for convenience, the *Perineosinuexericator*, the last paragraph of which being derived from the Greek word meaning “to explore”—a number of cases have occurred in my practice illustrating its usefulness in demonstrating both the presence and absence of sinuses. I select the following for publication:

CASE I.—Mrs. A. B., aged forty years, female, brunette, bilious temperament, native of Kentucky, residence in Louisville, 397 West Thirty-sixth Street, north side (up stairs); married 4th of July, 1866 (no cards); three children, named respectively Thomas, Richard and Henry; weight, one hundred and twenty-three pounds (somewhat greater after eating).

She states that her appetite is pretty good when she is hungry, generally sleeps at night, and is about during the day. Had suffered the week previous to her visit to me with perineal furuncle, for which ordinary remedies had been used, and it had discharged. Suspecting a sinus had resulted, I made exploration with the smaller of my instruments, and verified my diagnosis. Sinus measured .2 centimeters in depth. R. Argent. nit., to be used locally, and to take fluid ext. black haw. Cured.

CASE II.—Mrs. MacF., Italian, aged fifty years, widow; occupation, attending clinics; parents dead; uncle living, also a number of cousins. Subject of retroflexion since birth of first child, thirty years previous. Has improved steadily under pessaries, which have been worn during the last ten years. Sinus suspected. Fone found. Diagnosis, chronic retroflexion. Treatment: hysterotomy (declined); pessary continued; sea-bathing, and a trip to Europe.

JACQUES ROBINSON, M. D.

SOCIETY PROCEEDINGS.

OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY OF ST. LOUIS.

Stated Meeting, March 20, 1879. DR. S. G. MOSES, President, in the Chair.

MANAGEMENT OF LABOR.—*By M. Yarnall, M. D.*

In presenting this subject for the consideration of the Society, I am prompted by the fact of having had considerable experience, especially with instrumental cases. The ideas are the result of personal observation, and will be stated as briefly as I am capable of doing.

The longer a labor lasts, beyond limits well understood by all obstetricians, the more detrimental it is to both mother and offspring. The normal will, and often does become an abnormal process. Were it true that long labors were not dangerous to a greater or less degree, the very fact of the agony and exhaustion incident thereto would make it our first duty to make parturition rapid; but it is doubly our duty, when we remember the injury the mother may suffer, and the danger of the death of the child, to deliver as quickly as is compatible with their welfare.

During the first stage of labor I never interfere unless I find the patient is becoming restless, nervous or exhausted. I have frequently caused rapid dilatation of the os by placing the patient on the left side, elevating the hips, giving a large warm water enema into the rectum, and making the patient retain it as long as possible. Nearly always profuse perspiration and complete relaxation follow. After the bowels are evacuated, a cup of very hot and strong tea or coffee, tea preferably, has proved efficacious in my hands. Should this practice fail, and I find the patient is becoming exhausted without the circular fibres of the neck yielding, I quiet the pains with chloral hydrate, or an opiate, as I happen to think best. After a greater or less rest, the os usually opens. Should I fail by these means, and I find my patient sinking, as was the case in four instances in my practice, in two the neck was incised by the consulting Physician, though

not until the patient was almost moribund. The delivery was completed with forceps, and both mothers and one child perished. I have twice applied forceps and slowly delivered, lacerating the neck in each instance, but with favorable results. The consulting physician in these last deemed the cases hopeless. In one, during the pains, the circular fibre contracted so as to reduce the diameter of the os to one and one-half inches, and I was only able to apply the blade of the forceps during the intervals, at which time the opening was larger. I will state that dilators could not be applied in either instance, on account of the head pressing against the os, and occupying all the space. Should I again have to deal with a like case, I would follow the suggestion of a recent writer, who resorted to hypodermic injections of atropine in the os with seeming good results. Should this last course fail me, I would again use the forceps were the dilatation sufficient to admit of their application. The forcible dilatation and laceration which follows the extraction in these cases has proved in my hands better practice than incising the neck. If dilators can be used, it is decidedly the best practice, but in those cases I have alluded to, the presenting part of the fœtus occupied all the space.

It is proper at this point to mention the management of placenta prævia, as we deal with this unfortunate condition during the first stage of labor. I have had six cases in my practice,—three were marginal and three central implantations. In five, both mother and children were saved; in one both perished, though it is proper to state the mother did not die for several hours after delivery. As I was not present at the time of death, and have only the statements of ignorant people, I am not prepared to give the immediate cause. I delivered all by forcing my hand, cone-shaped, through the partially-dilated os, past the margin of the placenta, through the membranes, and turned. In one case I endeavored to use the "Barnes Dilator," but it did not prevent hæmorrhage. I impulsively removed it and thrust my hand through the os forcibly, and was successful. I propose to continue this method in cases that may present themselves in my practice. Where there is extreme exhaustion from loss of blood, I might modify the treatment by trying to stay the hæmorrhage, in order that the patient may have a chance to rally before evacuating the uterus. If, however, I cannot satisfactorily check the loss of blood, I will deliver, if possible, and take the chances.

In the second stage of labor I am so attached to the obstetrical forceps that I will make use of these instruments as often as possible. It is with me not a question, "When shall the forceps be applied?" but, "When shall they not be applied?" There are, however, a number of conditions contra-indicating their use. My experience has taught me that it is not only bad, but culpable practice to endeavor to deliver from above the superior strait. I have done so twice successfully, and failed several times. It would be justifiable in cases of extreme danger, if we had not the infinitely better method of turning, and thus bringing the smaller end of the wedge-shaped fetal ovoid in the pelvis. The practice holds good, according to my observation, in all cases of high positions when it is absolutely necessary to deliver. And it is especially true in cases in which the conjugate diameter at the superior strait is contracted. Sir J. Y. Simpson and Prof. Goodell, of Philadelphia, have clearly demonstrated the truth of this proposition. I would not presume to speak positively if I had not succeeded in four very difficult cases. After applying the forceps and failing, I turned and delivered children alive, and without injury to the mothers. I will state here, that I depend, in all breech presentations, and in fact, in all cases, upon expression to aid me. I endeavor to assist the action of the uterus by pressure on the fundus, for obvious reasons. I never apply the forceps until the neck is completely dilated or dilatable, and prefer it should have disappeared, save in those exceptional cases described in the earlier part of this paper. The practice cannot be too much condemned of applying forceps before the os is dilated or dilatable, and thus risking lacerating the neck. Aside from the immediate danger, there are few better methods of making gynæcological patients. I would not apply the forceps when the pains are effective; that is, when each pain drives the head lower and lower; but I would not wait an instant, all things being favorable, viz: the head well involved in the pelvis, the os completely dilated, and the progress of labor slow,—I say I would not wait, but I would deliver at once, and with the forceps. Just such cases constitute a large proportion of those we have to deal with. Now, I claim, without fear of successful contradiction, that if a difficult labor can be favorably terminated with forceps, how much easier can an easy labor be concluded with the same instruments; hence, there is no wrong in applying the forceps if the pains are not effective and

the conditions are proper. It is obvious there is no necessity in using them when labor is rapid, but there can never be an objection in a slow case. Forceps should always be applied in relation to the child's head when the position can be ascertained. Unfortunately, obstetrical writers convey the impression that this can always be done. Doubtless some accoucheurs are much more expert than others in this respect, but I believe that an absolute diagnosis of position cannot always be made, even by the greatest experts. I succeed in the large majority of cases, but have failed in some; and in others, when I believed I had ascertained the position, to my chagrin I discovered my mistake after the delivery. When not certain, I apply in relation to the pelvis. When the head is resting on the perineum, and it is greatly distended, I often remove the instruments and allow the head to pass itself. I prefer not giving chloroform, so that I may exercise traction while the pains are present; this, however, can rarely be done, as few patients have the fortitude to submit without anæsthetics. I invariably give ergot in the last stages of labor. It assists by lengthening the pains. It prevents after-hæmorrhage, and I am confident it lessens after-pains. It is a grand remedy, even if it vomits the patient, which it often does. "A sick labor is a quick labor;" so says the old adage. So I always give ergot.

I have had in my practice seven cases of puerperal convulsions. One died before any treatment could be resorted to. She was in the seventh month of gestation and was not delivered. One died after delivery, from pyæmia, caused by the forced delivery which was resorted to in order to stop the convulsions, which I had failed to accomplish by bleeding and chloroform, but succeeded in doing by the evacuation of the uterus. Five cases recovered. I administered chloroform in all, and resorted to blood-letting in three. I depend upon blood-letting for the permanent relief in these cases, and chloroform as the ready means at our disposal for quieting the violence of the convulsions. If the patient is not delivered at the time the convulsions occur, I would evacuate the contents of the uterus as certainly as I would in cases of placenta prævia.

In cases of retained placenta I have delivered after one or two hours had passed by, forcing my hand into the uterus and removing the after-birth. I have had no ill results.

In one case of adherent placenta which occurred in my prac-

tice, I removed portions by tearing it away piecemeal. To my surprise the patient got well without a bad symptom. I would pursue the same practice again.

The perineum is sometimes lacerated during the passage of the head, notwithstanding every effort may be made to prevent it, and it is often ruptured by the passage of the shoulders. I do not place any faith in the supporting of the perineum, though I think that by retarding the rapid progress of the head, and allowing the shoulders to be delivered by the natural process of labor, we pursue the best means of saving the perineum in those cases in which we fear rupture. The perineum should never be torn by forceps. I believe the judicious use of these instruments may prevent this accident. Their use should never occasion it.

In conclusion, I desire again to say, that I have had no occasion to regret the use of the forceps, since my experience has led me to the conclusions above stated, and I expect in the future to apply these instruments as often as possible, as well as to endeavor to hasten all cases of labor, by all the means known to the art, as far as is compatible with the welfare of my patients.

Stated Meeting. April 17, 1879. Dr. L. C. Boisliniere, Vice-President, in the Chair.

Discussion of DR. YARNALL'S Paper.

Dr. Maughs: I may say that I am associated with the triumph of the forceps in the schools and societies of St. Louis. When I came to St. Louis, Drs. Boisliniere and Papin had already fought the battle of the obstetric forceps, and triumphed, and in so doing, laid the foundation of a great obstetrical practice. I have always taught the free use of the forceps. I have always advocated that they should be used in cases of protracted labor, and that a woman should never be allowed to suffer a moment's pain unnecessarily. I have not always waited for dilatation of the os. I can state here, before the society, that I have never used the forceps, in consultation or private practice, where the woman died; therefore I have never done any harm with them, and I take it for granted that what I have done, others can do; therefore there is no harm in their

use. Then why should we allow a woman to suffer a single moment when we could relieve her without doing either the patient or the child any injury. I have also advocated their use above the superior strait in rare cases, and very frequently where the head is engaged in the superior strait.

It is well known that the danger of labor is very much in proportion to its duration. That which is slightly dangerous in two hours, becomes very decidedly so in eighteen hours, and if it goes on for eighteen hours it is very probable that it will be followed by bad consequences; therefore, if the forceps can be used without detriment to mother or child, we never should allow the patient to suffer unnecessarily. I have repeatedly, though not often, used them above the superior strait, there, perhaps, we should generally turn. Of course the os must be dilatable; but we should not always wait for it to dilate, for the head might be engaged in the womb and the cervix be caught between the pubis and the promontory of the sacrum, and in this case the head never would come down so as to dilate it. In these cases I have repeatedly dilated the dilatable os.

I had a case a short time ago over in Collinsville. The physicians were afraid to apply the forceps because the head was engaged in the superior strait, and the os could not be dilated. It was a protracted labor—there had been a cervicitis which had hardened the neck. This patient had been in labor forty-eight hours. I delivered her by dilating the mouth of the womb by the forceps, just as the uterus would have dilated it if it had acted with sufficient force. I delivered safely to both mother and child. I never give anæsthetics. Dr. Yarnall says in his paper that patients do not often have the courage without using anæsthetics; but persuade them that by using the forceps you will rapidly terminate their labor by a simple process.

I never give chloroform, then, for three reasons:

First, Because the operation is almost a painless one, and does not call for it.

Secondly, Because, if we use it and should happen during the operation to cause some laceration, there is no means of knowing it, as the patient does not feel the pain, and

Thirdly, Because, by using it, we lose the assistance of her voluntary efforts.

I wish to endorse the use of the forceps, and to affirm that they may be used and should be used in all cases of protracted

labor. There are two classes of midwifery : one is the meddling midwifery, and the other, *negligent* midwifery ; and I think that the most and the greatest evils are done by the *negligent* midwifery. It would have saved the mourning of a nation to have used the forceps in the case of the Princess Charlotte. The accoucheur said, after a labor of fifty hours, that the use of the forceps was never indicated. She died from exhaustion. In St. Louis she would not have done so. The poorest Irishwoman in St. Louis would not have been permitted to die under such circumstances.

Dr. G. A. Moses : In what proportion of cases do you use the forceps in private practice ?

Dr. Maughs : That question was asked me in the medical society, and I said four or five. I suppose I use them once in every three or four cases. Then it happens that half, or more than half of all the cases I do deliver, are consultation cases. I suppose in my own practice I use them about once in every seven or eight cases.

Dr. Bauduy : As regards the patient at Collinsville, was the os dilatable or dilated ?

Dr. Maughs : The os was dilatable to about two inches, but it had failed to dilate, on account of an old cervicitis. It was not dilatable so you could introduce your hand. But wherever you can introduce two fingers into it you can introduce the forceps. If one had used his hand and turned and delivered, he would have had, under such circumstances, to use some kind of dilator. I had a pair of forceps made with a view to meeting that difficulty—thin, narrow-bladed forceps. They were introduced in this case without what you would call a dilatable os. I will state here, I do not always refuse to apply them to the pelvis of the child. They can sometimes be thus applied with great benefit. I have in this way delivered safely four or five children. Dr. Keene and Dr. Scott had a case of breech presentation into which I was called. It had been forced down by the contractions of the uterus so that it was exceedingly difficult for me to introduce my hands. I applied the forceps, and taking advantage of the labor pains and the woman's bearing down efforts, I made traction so as to bring down the buttocks, and delivered the woman in twenty minutes.

I was sent for in the country to deliver a woman. The fœtus was fetid, and had swollen so that the skin of the child and mu-

cous membrane of the vagina were almost continuous, and the complexion of the child was almost purple. I applied the forceps to the child's breech and delivered the woman in ten minutes. So that while the use of the forceps in pelvic presentation is not taught, it is not necessary that mischief be done with them. In the hands of an experienced accoucheur they can be used in a great many cases.

Dr. Englemann: There are some points with which I can hardly agree. First, the doctor said he never found it necessary to incise the os; he found he could always introduce the blades of the forceps, and that he had delivered some four or five children in this way. Well, I don't know whether he has ever seen cases in which you could not introduce the forceps—in which you could not introduce even the tip of the finger. I saw such a case in consultation some time ago, a case in which the womb was pressed down, and would not dilate. The woman, a powerful Irishwoman, had been suffering intense pain, and the entire womb was being forced down. I gave her a quarter of a grain of morphia, which eased her pain a little but not the labor pains; then used warm injections; but the os would not yield in any degree; the pains were very severe and the mouth of the womb was appearing at the vulva. I saw this could not go on much longer, and put her in a position to be delivered, and within less than a minute afterwards I incised the os, and the child was there. That was the most serious case of the kind I ever saw, and there was not the slightest harm done; she had a perfect getting up and no trouble afterwards. I have seen the specimens of two cases when I was one of the assistants in the Berlin lying-in-hospital, where the neck of the womb had been torn off. There had been no physician in one case. In one case it was a perfect circle, and in the other instance it was torn through, in this case the os was larger and there was a physician present.

With regard to the application of the forceps in general, I think we all agree that it is a most excellent instrument, but it seems to me that we want strict indications for its use, as far, at least, as is possible. These things go into print, and the young practitioner, seeing it stated that the forceps do no harm, that the forceps should be used early, may be led into error. He is no judge of what is early, and you should give him certain indications when you say they may be used freely. I have

seen the same fact stated in the London Obstetrical Society, in which the same points were called up, and in which the free use of the forceps was advocated. Now it is certainly a very valuable instrument, and a great blessing in the hands of a competent surgeon, yet you can do a great deal of harm with it.

I was very much pleased to hear the doctor say that the forceps should be applied to the head of the child. I think it is the general opinion that they should be applied to the sides of the pelvis, but it has always appeared to me that if they can be applied to the child's head, that should be the practice. I do not understand why anæsthesia should not be used. Chloroform, if moderately used, does not stop labor. The patient, it is true, does not show signs of them, but the pains, it seems to me, continue all the same. In the case I alluded to, I gave the patient, first, morphine, and then chloroform. I have never found that the moderate use of chloroform would lessen the labor pains. I must confess that I like to give it in the application of instruments, and the only trouble is we have to watch the contractions of the womb, and we are not guided by the exclamations of the patient. With regard to another point that has been made in the paper, viz: that chloroform should not be used, lest we should do damage by the forceps without knowing it, it seems to me that we could introduce our fingers, and that our hand should tell us whether we are doing damage or not, and not the screams of the patient.

Dr. Yarnall: I desire to state that Dr. Engelmann did not hear my paper read, and he has not rightly understood me. I stated that I never applied the forceps at or above the superior strait unless the os was perfectly dilated or dilatable. In relation to the four cases which I cited, two occurred so long ago that I scarcely recollect the condition of the uterus.

In relation to the use of chloroform, when we give chloroform it very often happens that the pains are not very active: we want the patient to bear down, and the objection to the use of chloroform is that the accoucheur is unable to appreciate the fact that the pains are slight. Again, in applying the forceps when the woman is under the influence of chloroform, we sometimes pinch and catch the mucous membrane, and the woman being unconscious, gives no sign of the injury. However, I rather like the use of chloroform, and offer no objection to its use, provided a real necessity exists for it. As far as the

use of morphine is concerned, I invariably give that when the woman is in the first stage of labor, so as to give her rest.

Dr. Engelmann, said that it often seemed that the perineum was endangered by impingement of the head against the pubis and too early extension, under which circumstances he had endeavored to retard extension by pressing down the vertex until well engaged under the pubic arch.

Adjourned Meeting, April 23, 1879. Dr. L. C. Boisliniere, Vice President, in the Chair.

Discussion of DR. YARNALL'S Paper—Continued.

Dr. Yarnall: I would like to make a few remarks on the peculiar views of Dr. Engelmann, in relation to supporting the perineum. If I understood Dr. Engelmann correctly, he said that, in vertex presentations, that after the nape of the neck was resting on the sub-pubic ligament, he would press on the vertex, in order to support the perineum and prevent it from rupturing, and afterwards that he would lift the head out. Now, if that idea is correct, it seems to me rather a peculiar course to pursue. If the nape of the neck is resting on the sub-pubic ligament, if it presses on the vertex it will sweep the head back into the cavity of the sacrum; so he will press back the coccyx, and distend the perineum to such an extent that he might do considerable injury. If the perineum is not distended to a very great extent, it would be proper practice to pass the fingers into the rectum, and, to use Dr. Maughs' expression, "hull it out." But, if you pressed it down, you go exactly contrary to the true mechanism of labor. Dr. Engelmann made use of the expression, he did this, "to assist rotation." But, certain it is, if you press on the vertex, you sweep it back to the cavity of the sacrum, and in that way run the risk of tearing the perineum, if the nape of the neck is under the sub-pubic ligament; or, if it is not advanced that far, he will only press the child back.

Now, in relation to some views that Dr. Bauduy presented in regard to placenta prævia: While the doctor was kind enough to make some very complimentary remarks in regard to my success, he rather differed with me in relation to

the propriety of delivering rapidly. He would "sweep his finger around in cases of placenta prævia, detaching as far as the finger could reach; but in so doing, he would pass the death-warrant on the child, invariably, if he waits; and, as we have to take care of the child as well as the mother, it strikes me that the only proper course is to deliver as rapidly as possible. If the patient is in danger of death, we should, I think, stop the bleeding; but if the woman continues to bleed, I would evacuate the uterus, and take the risk of delivering as quickly as possible. I happened to be looking over the *American Journal of Obstetrics*, and I see that Dr. Atwater reports one thousand cases of labor in private practice, in which he had eight cases of placenta prævia, and the only child delivered alive in them, was that of a negro woman he delivered himself. In all the cases in which he interfered with the forceps, both mother and child perished.

Dr. Banbury: I would like to make one or two corrections with regard to misapprehensions of Dr. Yarnall: In the first place, my idea, as regards my criticism of his treatment of placenta prævia, was based on this consideration, that I thought cases of placenta prævia, varying a great deal as they do in their condition, should require very different treatment; that there was no such thing as a standard rule by which we should treat them. As I understood Dr. Yarnall's paper, he leaned towards the invariable rule of evacuating the uterus, and delivering as rapidly as possible. I considered it more advisable to adopt a different course; that, as all these cases of placenta prævia must be treated on their own merits, whilst in some cases it might be advisable to evacuate the uterus, in others it would result in the death of the woman. Then again, as regards the danger to the child, I do not wish to convey the impression that I would break up the entire placental adhesions, but that I would simply resort to Barnes' modification of Simpson's method, which is, detaching the placental attachments in the orificial zone. It would be found almost impossible to break up all the adhesions, unless we boldly insert the hand into the uterus, and that procedure is one, I think, which has been pretty generally abandoned. It was originally recommended by Simpson, but Barnes' modification seems to be the one which now meets with almost universal approbation of the profession, and it is also one which is eminently practicable, and very successful. If I should ever again have the misfortune to have a

case of placenta prævia on my hands, I should resort, if the woman were bleeding, to the breaking up of the adhesions of the orificial zone. The best point in this is, that the hæmorrhage is almost invariably arrested when such a course is resorted to. If the hæmorrhage be controlled by that procedure, what is the use of hurriedly evacuating the uterus? We then become masters of the position. If, notwithstanding the breaking up of the adhesions, the hæmorrhage should continue, which, I contend would be extremely rare, then it might be advisable to immediately evacuate, providing the woman is not in articulo mortis. But for all practicable purposes, the hæmorrhage being controlled, I can see no reason for resorting to any further methods of delivery, excepting to expedite labor by the use of the forceps. But, in reading over the literature of the subject critically, without being able to state from memory the figures, I think this statement will not be controverted, that in nearly all cases of placenta prævia, where the mother has been delivered by version, or accouchement forcée, the result has been unfortunate, that a vast majority of the successes in these cases has been where the mother has been left to the natural efforts, after, of course, controlling the hæmorrhage, that being the primary object of our solicitude. It is my belief, that the breaking up of the adhesions of the orificial zone will almost invariably control the hæmorrhage, and without, by any means, sacrificing the child, because there is still sufficient placental attachment to enable the child's life to be sustained.

Dr. Ford: I do not see how Dr. Bauduy's practice would be possible, with a case, (and it is not very unusual so far as I have read), which I have met with myself, that is, side and shoulder presentation, coinciding with placenta prævia. How can you leave the case to natural efforts, with no hope of success whatever, version being imperatively required. Detachment may be the first step, but something further than that is necessary.

Dr. Bauduy: As a matter of course, where mal-presentation exists, necessarily that would have to be corrected. I am speaking merely of dealing with cases which are un-complicated with these mal-presentations. Yet, at the same time, if a mal-presentation did not present itself, I should not interfere.

Dr. Prewitt: I want to say something about the laceration of the perineum. I would like to hear the views of some of the members present as to the causes of laceration; whether it is

simply due to the relative size of the child's head, or whether there is not something in the tissues themselves; whether it is not often the case that the tissues will lacerate in one perineum when they would not lacerate in another; whether some do not resist the force to a greater extent and do not tear with the same facility. A day or two ago I attended a primipara; she was rather a small woman, but had a well-developed pelvis. I saw her at 10 o'clock and the child was born at 12. When I saw her the os was dilated, and the labor going on well; when the head reached the perineum the pains were staid,—they were not very rapid, and I had ample time to discuss in my mind the question of making lateral incisions, but I could see no special reason for it. The perineum was, I thought, distending very well, and I rather retarded the labor; supported the perineum *secundem artem*, and told her I was not anxious to hasten the labor. I thought the case was progressing very well, but just as the head was protruded I heard the zip! of the laceration. I think it was begun by the head, and that the shoulders completed it. Now, the child was a large one, it weighed eleven pounds, but it seemed to me there was no reason to expect laceration. It is true, but it occurred to me that the tissues in that case lacerated more readily than they would in many cases. I delivered a woman to-day with the forceps, and it might be five minutes from the time I applied the forceps until she was delivered. I did not have time to withdraw the forceps—yet there was no laceration of the perineum. I cannot see why there should be this difference, unless there is a difference in the tissues as well as in the size of the child's head. Then as to the question of making these lateral incisions. In what condition shall we make them? How can we determine when it is necessary? These are points that I would like to understand, for it has been my misfortune during the last two or three years to have more lacerations of the perineum than in all my life before. One of them, I know, was due to the use of the forceps.

Dr. Bauduy: I would ask, if, in your experience you have not found the shoulders much more frequently cause rupture, than the head?

Dr. Prewitt: I am satisfied that they do, and I am satisfied that they extend the laceration that has already begun.

Dr. Bauduy: That has been my experience, and I think Dr. Boislincere told me that this was very commonly the case.

Dr. Boislincere: Yes.

Dr. Gehrung: I wish to speak regarding a point in Dr. Engelmann's remarks at the last meeting. I think Dr. Engelmann expressed himself incorrectly in calling his move a support of the perineum; he ought to have expressed it as an indirect protection to the perineum, instead of a support to it. It is well known, in the primipara especially, the perineum is greatly extended; that apparently, the head seems to be born—that is, outside of the pelvis, while as yet, there is no protection outside of the vulva, the perineum being distended, the vertex, by the elastic force of the perineum, is driven under the arch of the pubis against the ligamentum pubis with such force that the passage is almost impossible. Now under such circumstances, when the extension is too great, it is well for the accoucher, instead of allowing the perineum to be further distended, to first press along the perineum, perhaps commencing at the rectum or the middle of the perineum. He ought to interfere, and press the head down, so as to lessen the friction under the arch of the pubis, and increase the friction again so as to let it slip a little below the arch of the pubis, so that the point of detention is freed, and then the occiput will slip over the arch of the pubis, and the perineum can then press it upward, and external extension can take place. But the extension externally cannot take place, and it is to avoid that condition, and a therefore too great extension of the perineum, that this manœuvre is brought about. I have a number of times practiced this same principle with success.

In regard to a point that Dr. Prewitt made:—It is undoubtedly often the case, that small children, with rapid labors, are a great cause of rupture of the perineum. This is owing, not so much to any special pre-disposition of the perineum to rupture in these cases—although that is an acknowledged cause—but frequently to the rapidity of labor, especially of a small child, in a large pelvis, where, without the necessary rotations, extensions and flexion, nothing is adapted as it ought to be, and the child is simply driven through the parts without the necessary adaptation. The head will pass in one direction and the shoulders in another, and coming with immense force, must rupture everything that comes in the way of its progress.

Dr. Coles: I think there is a good deal in the point Dr. Gehrung just made in regard to the mechanism of the distension of

the perineum. I think sometimes the stretching of the perineum is not owing so much to the size of the head as to the fact that the child is pushed on by a force from behind—that the entire perineum is pushed out, as it were, and that the head having already passed from out of the pelvis, is distending the whole perineum laterally as well as from behind. It seems to me you can prevent the rupture of the perineum sometimes, by making lateral pressure, by putting your hand under that side of the head and pressing with your finger and thumb in either side, so as to prevent that forcible expulsion of the whole perineum. Because, when you do that, you allow the rim of the perineum to stretch in another direction, so that the child's head will sometimes come through. Speaking about the tendency to rupture of the perineum, that Dr. Prewitt alluded to—I was called some time ago to a case of labor, (I did not have to go more than a square from my house); it was a primipara. When I got there the child was born. The delivery had been completed by two pains. She had one slight pain, and just as she got in bed another pain came on and the child was born, the whole placenta had been shot out with the child. There was nothing for me to do when I got there, but I made an examination and found the perineum ruptured down to the sphincter, but not through. I sewed it up that night and she got well without the slightest trouble. I am well satisfied that this is certainly the chief element in rupture of the perineum. It is not so much the *time* of labor as it is the character of the very last pains. We all know that there is a great difference among women with regard to that matter.

Dr. Boislincere: (To Dr. Prewitt.) Your theory is undoubtedly correct.

Dr. G. A. Moses: In relation to the suggestions of Dr. Prewitt, I suppose very similar thoughts have suggested themselves to every one who has met with the accident. I have been for some time trying to decide how it is possible to arrive at a fair conclusion that the perineum in an ordinary labor is going to be ruptured. So far as the circumstance Dr. Coles refers to, *i. e.*, precipitate labor, that is a common cause of perineal rupture. The worst rupture that I have ever met with was in the case of a premature birth before the seventh month. It was a case of primipara in which, without any premonitory symptoms, labor came on and the woman lay down, the baby was shot out

straight. It was so immature that it did not live, yet there was a rupture completely through into the rectum. But there are frequent cases, both of primipara and multipara, in which it seems that it is impossible that the head shall pass over the perineum without rupturing. There are times when the distension makes it paper-like in thinness. I recollect in one case in which I, at first touch, thought the head was delivered covered by the membranes, but examination showed the perineum, marvellously distended. In some cases it seems as if the continued pressure at one point must cause everything to give way, yet a safe passage results, while in others, where the distension seems to be rather less in degree, we have rupture; that in some cases there is a condition of the perineal muscles and textures that makes them particularly prone to yield—much more apt than in other cases—a condition of fatty degeneration, perhaps. Whether we are able to distinguish this peculiar tissue which is so likely to yield, I do not know yet. But the reason this is more particularly brought to my mind, is that during the last two or three years I have had two cases of rupture of the perineum—both of them in unmarried women and young. The labors were perfectly natural, no violent pains. One of them was small, rather delicate, with mitral disease of the heart. The head was not large and there was no very great distension apparent until the very moment before it yielded, and then, although the pain had not been particularly severe, I felt that the perineum was in danger, and put my hand in my pocket with the intention of getting out a bistoury, but before I could have opened the knife there was a rupture.

In the other case the woman was tolerably stout and well developed. The perineum looked to me as if it would stretch to any necessary extent. It ruptured just as the head passed it, under chloroform. The idea of its rupturing had not even presented itself to my mind—it tore like a sheet of soft wet paper, and down to the verge of the anus. I am very curious to find out the indications for the use of the knife in these cases. If we should use it where there would have been no extensive laceration, we could not be certain that we were not doing more than nature would have done. I am inclined to think that the best thing to do, generally, is to leave it alone.

One word in regard to placenta prævia and in support of the teaching of Barnes. Placenta prævia may not be perfectly

central, and the further the departure from central implantation, the more chance, of course, there will be of saving the life of the child as well as that of the mother; and that is one recommendation, of course, in the plan of Dr. Barnes, in separating it as far as possible, so that we may save one edge and perhaps a large portion of the placenta will still be adherent and supply life to the child. I had a case of this kind some years ago. The patient was bleeding violently. Examination indicated implantation of the placenta over the os. I passed my finger around as far as possible; the hæmorrhage stopped. The woman did not go into labor for nearly three weeks, and never had another drop of hæmorrhage. She was delivered of a living child. There was a portion nearly as large as the palm of my hand in circumference, perfectly glazed and dry, showing distinctly the amount of separation from the uterine tissue. So in a large number of instances I believe the plan will be successful, and I think it is one we are always justified in attempting at any rate. If the hæmorrhage persists we can use the tampon or deliver rapidly, according to Dr. Yarnall's plan.

Dr. Maughs: I feel that I would hardly do right if I did not enter protest against some of the views announced in this controversy. One is that sustained by Dr. Yarnall, on support of the perineum. Not to do so, is not to do anything. I know his view is sometimes advocated, but if the perineum is not supported, then it is at the mercy of the accidents of labor, and the scientific accoucheur is of no more importance than the ignorant midwife. The mechanism of labor mentioned by Dr. Gehrung, is not correct. Labor never occurs in that way, and could not be permitted, and the perineum could not be benefited by any such manœuvre.

As to Dr. Prewitt's case, the causes of rupture of the perineum are five in number. First, the large size of the head; second, the small pelvis; third, flattening of the sacrum; fourth, a contracted arch of the pelvis; and fifth, a fatty condition of the perineum, whereby it is rendered more liable to rupture. Again, a very common cause of the accident would be an excess of flexion. As to the means of preventing laceration: I never make an incision. The time for making them is *never*. I protect the perineum by preventing a too rapid extrusion of the head. In these days of chloroform, we should almost never permit rupture of the perineum. In cases of decided malforma-

tion, it is an accident altogether possible; but at the time of the greatest distension, saturate the woman with chloroform, and take off the voluntary action, relax the muscles to the greatest possible extent, suspend the labor-pains by a full surgical administration of chloroform. This, together with a very moderate support of the perineum (and this is given by producing extension), place the hands over the anterior perineum, with the outer surface pressing against the point of the coccyx, and as the head advances, press it outwards and upwards, keeping the uterine pains in abeyance with chloroform. The shoulders may produce rupture, but it is only occasionally. In nine cases out of ten it is produced by the head.

Dr. Gehring: I agree in the main with what Dr. Maughs has just said. I think, too, that in a great majority of cases, rupture of the perineum depends rather upon non-extension of the head than from too much extension. But, on the other hand, the point of exception where I do not agree with Dr. Maughs, is, that such cases never happen as those Dr. Engelmann and myself have spoken of. I see why Dr. Maughs thinks so. It is because he misunderstands the point of progress where this manipulation is to be applied. Dr. Maughs spoke of when the nape of the neck is under the arch of the pubis. I agree with the doctor with regard to that, but Dr. Engelmann and myself referred to an earlier stage—not when the nape of the neck is engaged, but when the occiput is engaged behind the os pubis. Take another example. Supposing the head passed and the shoulders are engaged. Dr. Maughs has explained how to get the shoulders over the perineum, but I am sure the doctor would not support the perineum before the one shoulder had completely engaged, under the arch of the pubis. Every accoucheur and midwife will try, if there is an obstruction to pull the upper shoulder outward a little, and to bring it, to some extent, under the pubis, and then guide it over the perineum. It would be simply doing what the perineum does in head presentation,—it would simply press that shoulder so much more tightly under the arch of the pubis that it could not sweep it. The same point I maintained with the head. If extension is too great before the head is pushed out, then it will push out the perineum, and the perineum, with its elasticity, will then face up, and engage the occiput so tightly behind the os pubis, that it will take a long time before it can pass; but if the head is only

pressed down a little, say, for instance, a line or half line, simply to lessen the friction, why, it will sweep under the arch of the pubis, and then the progress of the labor can go on, and you may save the perineum.

Dr. Maughs: Dr. Gehrung is entirely mistaken again in his mechanism of labor. The anterior shoulder never is extruded; it is not interfered with in a normal labor. In this case the right shoulder comes against the sub-pubic ligament, it remains there, and is not born before the other shoulder, not extended, not dragged down until the left shoulder sweeps over the entire perineum. Now, the condition that Dr. Gehrung talks about can never be facilitated by any such manœuvre. When there is a sinciput presentation instead of a vertex presentation, then the manœuvre he speaks of should be performed.

Dr. Prewitt: It seems to me that the theory of Dr. Maughs, in regard to the prevention of laceration, would involve the universal use of chloroform. That is, we would have to be always prepared to give it; we would be obliged to give it fearing this condition of things. Then again, in regard to Dr. Gehrung's position, it seems to me, in my experience of rupture of the perineum, it has always occurred when the head is escaping, when the vertex is passing from under the arch of the pubis, when it is passing through the vulva. In one case I was giving the woman chloroform, but the labor seemed to be normal enough, yet the perineum tore, just as Dr. Moses expressed it, as though it was soft paper. And that is my experience, that it is not the hard perineum; but, in those cases where the perineum is more muscular, it seems to be softer and to yield. It seems to me more apt to tear in those cases where the perineum is not so very thin—where it is more muscular, then, it is more likely to tear.

Dr. Hodgen: I wish to ask which shoulder is born first?

Dr. Boislínere: I will say this, there is a great difference between primipara and multipara in that respect. In primipara, although the superior shoulder presents first, the rule is to deliver it first, on account of the resistance of the perineum. And that is what nature would generally do. But in multipara, the posterior should be delivered first.

Dr. Maughs: That is a matter of convenience; but where you do not have to do it, what then?

Dr. Boislínere: The natural mechanism of labor will be for

the posterior shoulder to sweep the sacrum and rotate around the superior shoulder as a center, and will be born first, and immediately the upper shoulder will be born. That is my experience. Adjourned.

EXTRACTS.

GELSEMIUM IN NEURALGIA.—According to Prof. Massini, the cases in which gelsemium produces most benefit, are those of simple rheumatic neuralgia of the alveolar branches of the trigeminus; in those it rarely fails. It also sometimes relieves the pain remaining after the stopping of a carious tooth. Where there is any inflammatory affection of the bone or periosteum, no good can be expected from the remedy. The medicine may, if necessary, be repeated several days in succession, the active principle rapidly passing off by the kidneys.—*Med. & Surg. Rep.*

GALVANISM IN THE VOMITING OF PREGNANCY.—Dr. Fred D. Lenté, of New York, was among the first to speak of the utility of electricity in controlling the vomiting of pregnancy, as well as that from uterine irritation in the non-gravid state. He says that since the institution of this treatment, he has never found it necessary to resort to uterine applications. Prof. T. G. Thomas has also spoken in the highest terms of its efficacy for nausea and vomiting in general, and for the obstinate gastric disturbance following ovariectomy. The method consists of the application of a broad, flat electrode over the epigastrium, and a similar one on the spine opposite, with the passage of a feeble, smooth, barely perceptible, induced current, prolonged for 15 to 30 minutes.

Or, Chloral h. and Pot. Brom., 20 grs. of each, dissolved in gum water, may be administered by enema, at short intervals, until moderate narcotism is produced.

NOTES.

FROM THE U. S. CENSUS OFFICE.—We have received a book of blanks for return of deaths for one year from June 1st. All physicians throughout the country have likewise been favored,

with the request that the forms be filled up and in due time forwarded to Washington. This is in the direction of systematic efforts to improve and render complete the registry of the vital statistics of the United States, which is sadly behind all other civilized nations in this particular. The subject as now presented came up before the American Medical Association at its late meeting, in Atlanta, and received its hearty commendation. We would suggest that the book be hung up or placed conspicuously in the office, that it may not be forgotten or neglected.

"PUBLIC HEALTH.—A weekly journal devoted to the Preservation of Health: E. J. Bermingham, A. M., M. D., editor. New York, \$2 per year. Vol. 1, No. 1, July 5th, 1879." This is the title of a new periodical devoted to a subject of which too much cannot be said; namely: the conservation of health, both of the individual and of the public. It is intended for popular reading, and yet may be perused with profit by the profession. Too little is known of all the causes producing disease, many of which are preventable; this new sanitary journal, with an able corps of assistants, will promulgate knowledge in this field. We wish it all success.

THE Medical Department of Yale College proposes to extend the period of study to three years, and to exact an examination for admission and for advancement, and to make the method of instruction less didactic—more recitative.

WE observe that a recent circular from the "Secretary of the Atlanta Committee on Raising Medical College Fees," makes the correction to which we called attention in our last issue, namely, "the fees of the St. Louis Medical College are \$105.00 already." We certainly agree with the committee that all the schools might come to have a common standard of fees.

ONE of the best things we have ever heard of the Long Island College Hospital is that at its recent examination for conferring the degree of Doctor of Medicine, twenty per cent. of the applicants were rejected. Thirty-three were accepted and received their degree June 25th, at the time of the annual commencement, held at the Academy of Music, Brooklyn.

NAMES OF THE PRESIDENTS AND SECRETARIES OF LOCAL MEDICAL SOCIETIES OF MISSOURI.—Boon County Medical So-

city: W. Moss, President, J. H. Duncan, Secretary. Chariton County Med. Ass'n; G. M. Dewey, President, T. A. Martin Secretary. Grand River Medical Society: W. M. Givens, President, T. Brown, Secretary. Howard County Medical Society: J. G. Bailey, President, U. S. Wright, Secretary. Kansas City District Medical Society: T. J. Thornton, President, E. W. Schaufler, Secretary. Kansas City Medical Society: A. B. Sloan, President, J. H. Van Eman, Secretary. Lewis County Medical Society: R. S. Briscoe, President, R. C. Risk, Secretary. Linton District Medical Society: G. W. Broom, President, Pickney French, Secretary. Macon County Medical Society: T. J. Norris, President, D. H. Mathews, Secretary. Medico-Chirurgical Society, of St. Louis: N. B. Carson, Secretary. Northwestern Missouri District Medical Society: A. Goslin, President, W. B. Craig, Secretary. Saline County Medical Association: E. M. Talbott, President, Jos. Field, Secretary. Southeastern Missouri Medical Association: A. E. Simpson, President, A. A. Bondurant, Secretary. St. Louis Medical Society: C. W. Stevens, President, W. E. Fischel, Secretary. St. Louis Obstetrical and Gynæcological Society: S. G. Moses, President, T. F. Prewitt, Secretary. Southwestern Missouri Medical Society: A. D. Mathews, President, T. W. Flanner, Secretary.

We would thank our friends to inform us of any omissions or errors in the above, as the census officer has asked of us a correct list.—[Ed.]

THE University of St. Louis, on the occasion of its fiftieth anniversary conferred the degree of L. L. D. on Drs. Alleyne, Bauduy, Smith, Papin, Boisliniere and Gregory, all of this city.

OBITUARY.

JAMES M. YOUNGBLOOD, M. D., died in St. Louis, June 24, 1879, aged 45 years, 6 months and 8 days. He was born in Green Co., Tenn., where his father was a large farmer. He spent his youth at the place of his birth, and in the southeastern part of Missouri, where he received the education of the country district school. Later, he taught school in the summer, and attended the academy and college in the winter. Graduated in medicine at the St. Louis Medical College, session 1863-4, and received

the *ad-eundem* degree, at the Missouri Medical College, in 1868. Served as Assistant Surgeon in the U. S. Volunteer Service, in 1864, being stationed at Gratiot-Street Prison, St. Louis. At the close of the war, he commenced practice in St. Louis, where he remained in the active pursuit of his profession up to the time of his death. While he had a preference for surgery, and especially for the surgical diseases of females, still he did a general practice. Early in his professional career he devised an exceedingly ingenious stomach-pump; later, in 1868, he suggested and used the hollow sound as a means of applying cold to the urethra, an account of which was published in the *Humboldt Medical Archives* at the time, and which we, in the *COURIER*, vol. 1, page 402, did him justice by establishing his claim of priority. He was a member of the American Medical Association in 1873, member of the St. Louis Medical Society for thirteen years, and in which he held different offices of trust and honor.

In his dealings with his patients and professional brethren he was honorable and upright to a fault. He was highly respected by the community in which he lived, and which conferred upon him the honorary and responsible position of school director, he having been in the School Board during the years 1876-77.

Previous to his final sickness he had never before been in better physical condition. He suffered about ten days with a dysenteric bowel trouble, which, on the 17th of June, culminated in acute hepatic disturbance, which brought him to the bed on which he died one week thereafter. A post-mortem examination revealed an abscess of the liver.

To the wife and five children he left behind remains the legacy of an unsullied reputation.

He was buried with Masonic honors, a member of which fraternity he had been when living.

The profession of the city was called together, and expressed, by fitting resolutions, its regret at his untimely death.

DR. TILBURY FOX.—Dr. Fox died in Paris, June 7th, 1879, in his forty-third year. For a number of years he had been suffering from a serious aortic disease, which he knew was likely to prove fatal at any time. At the time of his death, Dr. Fox was in Paris endeavoring to seek relaxation from his arduous professional duties. The name of Tilbury Fox will always be associated with some of the best advances in modern dermatology, and to him the English school will be under lasting obli-

gations. While very conservative in his ideas, especially in therapeutics, he was quick to acknowledge the influence of Hebra and his followers, and did more than any other of his countrymen to put cutaneous medicine on a scientific basis, by his conscientious devotion to the morbid anatomy of the skin. This phase of his work was becoming more apparent every day. Dr. Fox's publications were numerous, and besides many contributions to periodical literature, included a number of systematic works. It is gratifying to learn that his labor was appreciated, as it is stated that he earned an income of from twenty to thirty thousand dollars a year from his specialty.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.				METRIC.	
				Gms.	
℥i.	or	gr. i.	equals	-	31.106
℥xv.	or	gr. xv.	equals	-	3.75
fʒi.	or	ʒi.	equals	-	37.5
fʒi.	or	ʒi.	equals	-	3.75

The decimal line instead of points makes errors impossible.
A teaspoon is 5 Gms.; a tablespoon, 20 Gms.—*Metric Bureau.*

MORTALITY TABLE.

CITIES.	ESTIMATED POPULATION	DEATHS.	DEATH RATE PER 1000.
New York.....	1,095,805	*2,093	25.00
Philadelphia....	901,380	†1,030	15.25
Brooklyn.....	564,448	†692	16.00
St. Louis.....	500,000	†411	10.70
Chicago.....	460,000	†639	16.65
Boston.....	375,476	†480	16.50
Cincinnati.....	280,000	†394	16.25
New Orleans.....	210,000	§378	23.40

* For the four weeks ending May 24th.

† For the month of June.

† For the four weeks ending June 7th.

§ For the four weeks ending June 8th.

ANNOUNCEMENTS FOR THE MONTH.

HOSPITALS.

CITY HOSPITAL, corner Linn street and Lafayette avenue—D. V. Dean, M. D., Superintendent in charge. *Clinical Lectures*.—MONDAYS, A. M., 9 to 10, Prof. Robinson, medical; 10 to 11, Prof. Lankford, surgical; 11 to 12, Prof. Michel, eye. WEDNESDAYS, P. M., 3 to 5, Prof. Smith, medical; 4 to 5, Prof. Hodggen, surgical, and Dr. J. Green, eye. THURSDAYS, A. M., 9 to 10, Prof. Bauduy, nervous system; 10 to 11, Prof. Lankford; 11 to 12, Prof. Michel. SATURDAYS, same as Wednesdays.

ST. LOUIS MULLANPHY HOSPITAL, corner Grand avenue and Montgomery street—In charge of the Sisters of Charity. *Clinical Lectures*.—TUESDAYS, A. M., 9 to 10, Dr. Pollak, eye, and Dr. G. A. Moses, diseases of children; 10 to 11, Prof. Gregory, (and Dr. Carson,) surgical; 11 to 12, Prof. Boisliniere, (and Dr. Moses,) diseases of females; 12 to 1, Dr. Glasgow, diseases of throat and chest, (and Dr. McCabe, medical). SATURDAYS, same as Tuesdays.

ST. JOHN'S HOSPITAL, corner Twenty-third and Morgan Sts.—Conducted by Sisters of Mercy. *Clinical Lectures*.—MONDAYS, A. M., 10 to 11, Dr. (Prof. Adj't.) Shaw, medical; 11 to 12, Prof. Prewitt, surgical; P. M., 2 to 3, Prof. Todd, diseases of the ear and throat, and Prof. Kingsley, diseases of children; 3 to 4, Prof. Papin, diseases of women. TUESDAYS, A. M., 10 to 11, Dr. Shaw, medical; 11 to 12, Prof. Prewitt, surgical, and Prof. Michel, diseases of the eye; P. M., 2 to 3, Prof. Kingsley; 3 to 4, Prof. Papin. WEDNESDAYS, A. M. 10 to 11, Dr. Shaw; 11 to 12, Prof. Prewitt; P. M., 2 to 3, Prof. Todd. THURSDAYS, A. M., 10 to 11, Dr. Shaw; 11 to 12, Prof. Prewitt; P. M., 2 to 3, Prof. Kingsley; 3 to 4, Prof. Papin. FRIDAY, A. M., 10 to 11, Dr. Shaw; 11 to 12, Profs. Prewitt and Michel; P. M., 2 to 3, Prof. Todd; 3 to 4, Prof. Papin. SATURDAYS, A. M., 10 to 11, Dr. Shaw; 11 to 12, Prof. Prewitt; P. M., 2 to 3, Prof. Kingsley.

ST. LUKE'S HOSPITAL, Tenth and St. Charles streets—*Episcopalian.—Clinics—Dispensary.*—MONDAYS, P. M., 2 to 3, Dr. J. Green, diseases of the eye and ear, and Dr. Wm. Porter, diseases of the throat and lungs; 3 to 4, Dr. Barret, diseases of women. TUESDAYS, P. M., 1 to 2, Prof. Alleyne and Dr. Fischel, diseases of children. WEDNESDAY, P. M., 2 to 3, Dr. Green. THURSDAY, P. M., 1 to 2, Prof. Alleyne and Dr. Fischel. FRIDAYS, P. M., 1 to 3, Drs. Green and Porter; 3 to 4, Dr. Barret. SATURDAYS, P. M., 1 to 2, Prof. Alleyne and Dr. Fischel.

U. S. MARINE HOSPITAL, Marine Avenue, near Carondelet Avenue.—*Clinics*, daily. Physicians and medical students invited.

ALEXIAN BROTHERS' HOSPITAL, Corner Jefferson Avenue and Osage Street.—*Clinics.*—Daily, at 10 A. M., Dr. Wessler, medical; Dr. Lutz, surgical.

INFIRMARIES.

ST. MARY'S INFIRMARY, 1536 Papin street, under the charge of Sisters of St. Mary.—*Clinics.*—Daily, A. M., 9 to 10, Dr. Yarnall, diseases of women and children; 10 to 11, Dr. Holland, general and orthopedic surgery; 11 to 12, Dr. Hypes, medical. MONDAYS, WEDNESDAYS and FRIDAYS, 12 to 1, Drs. Gebser and Frazier, diseases of the eye and ear; 4 to 5, Dr. Stuever, diseases of the throat; TUESDAYS, THURSDAYS and SATURDAYS, P. M., 1 to 2, Dr. Hardaway, diseases of the skin.

MISSOURI EYE AND EAR INFIRMARY, 109 N. Eighth street—*Clinics.*—Daily, P. M., 1½ to 3, Drs. Gebser and Frazier, diseases of the eye and ear.

SOCIETIES.

ST. LOUIS MEDICAL SOCIETY, adjourned for the Summer.

MEDICO-CHIRURGICAL SOCIETY, 1615 Washington Avenue, meets on the second and fourth Mondays, the 14th and 28th of July, from 8 to 10 p. m.

ST. LOUIS OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY has adjourned until the third Thursday in September.

BEAUMONT MEDICAL CLUB, 1536 Papin Street, meets first and third Thursdays, the 3d and 7th of July, at 8 o'clock P. M. Papers on medical and kindred topics, and discussions.

ST. LOUIS
COURIER OF MEDICINE
AND
COLLATERAL SCIENCES.

VOL. II.

AUGUST, 1879.

No. 2.

ORIGINAL ARTICLES.

OBSERVATIONS ON THREE UNUSUAL CASES OF
SYPHILITIC GUMMATA OF THE EYE.

By CHARLES STEDMAN BULL, A. M., M. D., *Surgeon to the New York
Eye Infirmary.*

THOUGH gummy infiltrations are not uncommon manifestations of constitutional syphilis in the eye, they are usually found here moderate in extent, more or less circumscribed, and oftener affecting the dense fibrous tissues of the organ than any other part. Moreover, though met with in the sclera and episcleral tissue, and more rarely in the conjunctiva, I believe that there is no case recorded where the growth or infiltration involved the cornea. Hence, the interest which centres in one of the three cases here reported. The course of the infiltration and subsequent destruction of tissue is usually from within outwards, especially in the extensive gummy deposits in the iris and ciliary body, which are sometimes met with; and here the thinning process extends outwards through the sclera, and if the intra-ocular tension is much increased, tends to the development of ciliary and occasionally of equatorial staphylomata. But in two of the cases the progress of the infiltration

was apparently from without inwards, and was followed by destructive ulceration of the layers of tissue first infiltrated.

Again, when syphilitic deposits occur in the sclera, they are almost always met with in the course of the straight muscles of the eye, and usually over the course and insertion of the external rectus, which has led some observers to think that perhaps the infiltration in these cases starts from the sheath of the muscle, or from the capsule of Tenon in the immediate vicinity. But in none of the three cases was this found, for there was no apparent connection with the tendon of any muscle.

Another point of interest in one of these cases was its obstinacy in resisting treatment. Usually, syphilitic infiltration of the sclera, or episcleral tissue, or conjunctiva, when it does not involve the ciliary body and choroid, readily yields to a systematic course of mercurial inunction and Potass. Iodid.; but the duration of this one case was markedly prolonged.

CASE I.—*Gumma of Sclera.*

J. M., *æt.* 42, ship-carpenter, first seen on May 2d, 1878. Initial lesion on glans penis, just in front of corona, contracted seven years before, and was followed by bilateral inguinal adenitis, and a somewhat marked precocity in some of the earlier constitutional symptoms. An iritis developed in the left eye before the chancre healed, and a flat eruption made its appearance shortly after, probably a roseola. He thinks the chancre was open about two months before it cicatrized. The iritis lasted a month, and there has been no relapse since, but at times there has been intense, darting pain in the eye, and occasional attacks of obscuration of vision, from which, however, he always recovered.

Seven weeks before presenting himself for treatment, after a very severe attack of pain in the left eye, he noticed that the eyeball became red, and that the redness was most marked upwards and outwards towards the temple. This redness increased; in a day or two he noticed a swelling at this spot, and the pain, instead of vanishing, remained, and

the eye became very sensitive to light and pressure. This state of things continued to increase and the symptoms grew in severity, in spite of a course of mixed treatment given him by his family physician. When I saw him there was marked photophobia and lachrymation, great sensitiveness to palpation, and an expression of great suffering. On opening the lids, I found a dilated pupil from atropia, no adhesions, no opacities on capsule, and a clear cornea. In the upper and outer sector of the eyeball, between the external and superior recti muscles, and about a line back from the corneal margin, was a growth, deep red in color, moderately hard and very sensitive, about five lines long from before backwards, three lines broad, and irregularly elevated about one line above the surrounding surface. The superficial and deep vessels were enormously distended, but the conjunctiva was movable over the tumor, and the blood could be pressed out of the vessels. The eye was somewhat restricted in motion outward and upward, but probably more from the pain occasioned by attempt at motion in these directions. Vision was $\frac{20}{30}$ with the hypermetropia corrected, and the ophthalmoscope showed clear media and a normal fundus. The infiltration was plainly scleral, but involved also the episcleral tissue, leaving the conjunctiva free. This patient had well-developed periosteal trouble on the head and extremities, and there were several well-defined nodes on the frontal bone near the orbital margin, and on the parietal bones. There were some irregular white cicatrices of old skin lesions upon the face and chest. The patient was placed immediately upon the use of mercury and potash. Half an ounce of mercurial ointment was rubbed into the skin of the inside of the elbow-joint daily, and Potass. Iod. grs. xx., given thrice daily. Both discontinued on sixth day, owing to the state of the mouth, and after an interval of four days, re-commenced. In spite of this treatment the gumma increased in size, and the pain became so severe as to require 3 gr. doses of opium to relieve it, and then only for a short time. The increase in size seemed to be in its thickness mainly, as at one period

it reached an elevation of about two lines above the rest of the surface. In spite of persistence in the above treatment, together with the use of atropia, hot water and leeching, and a paracentesis of the cornea on two occasions, when the tension was very much increased, the disease lasted at its height for nearly four weeks before showing any signs of subsidence. The opening of the anterior chamber did more to relieve the pain than anything else employed. When improvement once set in, the progress towards a cure was steady and satisfactory, and at the end of the eighth week the patient was discharged with a normal pupil, perfect vision, and no trace of the infiltration in the sclera.

CASE II.—*Gumma of Sclera and Cornea.*

Woman, *æt.* 31, single. No accurate history of the date of occurrence of the primary lesion, but patient has had several skin eruptions, alopecia, faucial ulceration, and has periosteal thickenings in various parts of her body, that are at times very painful. The earliest symptoms occurred four years before I saw her, and shortly after that she had an attack of iritis in the left eye, and some three or four months later a second attack in the same eye. Since then, the vision has been somewhat blurred in that eye. Two weeks before presenting herself for treatment, the left eye became red and painful, the redness being most marked on the nasal side and below, and the vision soon became more blurred. When I saw the patient, there was a good deal of conjunctival chemosis, marked general conjunctival and pericorneal injection, both of the superficial and deep vessels. The aqueous humor was turbid, the iris discolored and swollen, the pupil irregular and immovable. At the limbus in the infero-nasal quadrant was a yellowish-white nodule, about the size of a split pea, elevated a line and a half above the sclera and cornea, and covered by conjunctiva, which was movable over it. The superficial and deep injection was most marked in this vicinity, and the conjunctiva was chemotic. The growth extended more upon the sclera than upon the cornea, but there was a zone

of infiltration extending into the cornea for perhaps half a line in width around the growth. With the ophthalmoscope there was gained an indistinct view of the fundus, and there were spots of pigment on the capsule from former attacks of iritis. The eye was somewhat sensitive to the touch, but not nearly so much so as in the first case, nor was the pain anything like as intense.

This was the first case I had seen in which what was evidently a gummy growth had encroached upon the cornea. The same treatment was pursued here as in the first case, and with at first about the same result. The gumma increased steadily in size, mainly in a vertical direction, and encroached more upon the cornea, so that on the tenth day it involved the inner and lower third of the cornea, and the zone of infiltration extended fully up to the centre of the cornea. Up to this time it had resisted treatment, as had also the iritis, very few of the synechiæ having been broken. But on the twelfth day it began to ulcerate on the side towards the sclera, and the degeneration advanced so rapidly that on the eighteenth day the gumma had diminished in length and height by one-half. The iritis had also nearly subsided, though the synechiæ were still firm. Ten days later all trace of the tumor had disappeared, and there was a shallow ulcer where the gumma had been. The corneal haziness was still very marked, and the ulcerative process still continued, and soon threatened to perforate the cornea at the limbus. It extended as far as the posterior elastic lamina, and remained in this condition for about four days without any change, and then began slowly to fill from the bottom. The infiltrated zone in the cornea also began to clear up, and under the influence of hot water and bandaging the ulcer had entirely healed and the cornea had become perfectly clear at the end of the fourth week from the beginning of the ulceration in the growth.

A gummy nodule of the cornea as this was, though involving also the sclera, is certainly a very rare lesion in constitutional syphilis, and the obstinacy in resisting treatment for a long time is worthy of notice.

CASE III.—*Gumma of the Sclera and Episcleral Tissue occurring in one eye, with Ciliary Staphyloma caused by Disintegration of a former Gumma.*

Colored woman, *æt.* 50. No exact history of any initial lesion, but early constitutional symptoms occurred nearly three years before, such as a skin eruption, sore throat, alopecia and periosteal pains. About a year before I saw her, she began to have pain in her left eye, accompanied by redness and swelling of the ocular conjunctiva, and blurred vision. This swelling she localized in the region of the external rectus muscle; said it grew somewhat rapidly, was very painful, and any movement of the eye caused pain. The sight was markedly impaired, and remained so for about four weeks, when the symptoms began to slowly subside. The eye remained quiet, but with somewhat weak vision until November, 1878, when pain and redness again set in, and a small red prominence appeared on the left eye, just back of the corneal margin in the infero-temporal quadrant. When I first saw her on the 12th of this month, there were posterior synechiæ on the temporal side of the pupil, but no fresh iritis. There was a marked thinning of the coats of the eye on the temporal side in the ciliary region, extending from the upper margin of the external rectus down to the inferior rectus, and a distinct protrusion in this region, forming a well-marked ciliary staphyloma. Back of this, extending posteriorly beyond the equatorial region, was a recent gummy infiltration of the episcleral tissue and sclera, as large as a lima bean and somewhat flattened, covered by a swollen, chemotic conjunctiva, and very painful on pressure. There were some spots of pigment on the capsule, but the media were clear and the fundus fairly healthy, except in the region of the staphyloma, where there were large, irregular masses of pigment, which reached even back of the equatorial region. V. ²⁰/₇₀.

This case proved much less obstinate under treatment. The patient rapidly came under the influence of mercury and Potass. Iodid., the gumma began to be absorbed, the

pain and redness grew less, and even the old adhesions to the capsule yielded in part, so that the patient was discharged on the 26th day. This case shows the great ravages that syphilis causes in the eye in the negro race, a fact to which I have on several previous occasions called attention. The vision remained the same, $\frac{20}{70}$, as at first. The thinning of the coats at the staphyloma was, however, so advanced that a rupture may take place in the near future, and the contents of the eye be evacuated.

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VIEWS SUGGESTED BY THE STUDY OF THE ETIOLOGY OF PUERPERAL ECLAMPSIA.

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[Read before the Obstetrical and Gynæcological Society of St. Louis, May 15, 1879.]

IN a very able and interesting paper, by Dr. G. A. Moses, read before the St. Louis Obstetrical and Gynæcological Society, and published in the February number of the ST. LOUIS COURIER OF MEDICINE, this subject has been discussed in a masterly manner. In the present paper we arrive at conclusions, which in the main, will be found to correspond with those advocated by Dr. Moses. The latter, after reviewing the theories of Braun, Frerichs, Rosenstein and Traube, refers to the indisputable distinction existing between the symptoms of acute nephritis and those of the *Puerperal form* of renal complications. Any ordinary observer will admit that the argument to be deduced by the differentiation of these symptoms is well founded, and must obviously suggest to all minds grave sources of doubt as to the claimed analogy of the two affections.

The researches of Drs. Mahomed and MacDonald are particularly dwelt upon by Dr. Moses, as corroborative of his views of the neuropathic origin of eclampsia. The

next important argument advanced all must admit, namely, that "convulsions occur in numerous instances where no albuminuria exists from beginning to end, and where, after death, no renal lesion is discoverable." * * * * *

"Again, we may have profound chronic acute nephritis, terminating during the puerperal period in death, and still no sign of convulsion, even though foetal death result."

Again: "Albumen may exist in the urine independently of renal diseases, and is not always to be considered as indicating it."

Dr. Moses then quotes Barnes, that:

1. "Pregnancy and labor require for their due fulfillment an extraordinary supply of nerve force."

2. "This implies an extraordinary development of the spinal cord."

3. "This provision implies a greatly *augmented irritability* (italics our own) of the nervous centers."

4. "The disturbances of nutrition entail some alteration in the blood, which reacts upon the nerve nutrition, and predisposes to increased excitability."

These last propositions of Barnes in his Lumleian lectures of 1875, quoted by Dr. Moses, are, to our mind, the most important factors for consideration, and have not received sufficient attention.

We will now proceed to develop our views of the question, and assign the reasons which influenced us to undertake this paper.

In the first place, we are of the opinion that "latent predisposition" has more etiological importance than ever has been accorded to it, notwithstanding the exhaustive manner in which puerperal eclampsia has been studied.

Viewing the disease, as we do, from a neurotic standpoint, we believe that, like all other allied maladies of nervous origin, there exists a prior condition of unstable nervous equilibrium, or organization, which in individuals predisposed, invites the attack of the malady.

In syphilitic affections of the nervous system, we find an analogous condition most striking, in an etiological point

of view. What a small proportion of persons have brain syphilis, for instance, compared with the immense number who are victims of the specific poisoning of that direful malady? This, however, is not a mere accidental or haphazard occurrence. We believe with Huebner, in his article on "Syphilis of the Brain and Nervous System," page 300, Ziemssen's *Cyclopædia of Medicine*, that, "hereditary predisposition to nervous diseases (to the importance of which, in reference to all diseases of this class, Griesinger has called attention), undoubtedly plays an important part in its development. It is highly probable that an organism, whose nervous system is already by inheritance in a condition of unstable equilibrium, may be affected by nerve syphilis both easily and at, perhaps, an early period, when subjected to infection." * * * The same rule applies throughout the entire domain of neuropathic affections, whether considered as attributable to direct hereditary transmissions, or merely acquired through Trousseau's "transmutation of nervous diseases."

We shall now inquire into the views of authorities concerning the question of the latent disposition and the neurotic origin of puerperal eclampsia.

Prof. Barker (*Puerperal Diseases*), quoting Rosenstein, says: "Now, in view of these facts, and taking into consideration the great nervous reflex excitability of pregnant women, especially primiparæ, and the tendency therefrom to affections of the nervous system, taking into account, also, the condition of the blood during pregnancy, and its tendency to transudation—considering, moreover, the frequent occurrence, as shown by autopsies, of œdema and anæmia of the brain—Rosenstein says, we are perhaps justified in regarding eclamptic convulsions as a phenomenon attending the alteration of the circulation within the brain." But we may add, that in this brain there is an inherent tendency to nervous irritation and disturbance; and, as Prof. Barker adds, "that the nephritis and the convulsions are produced by the same cause, *e. g.*, some detrimental ingredient circulating in the blood, irritating both

the cerebro-spinal system and other organs at the same time." Frankenhausen, of Jena, quoted by the same author, is of the opinion "that these sudden occurrences of the eclamptic attack following all external sources of irritation (as pressure of the fetal head upon the cervix, digital examinations, etc.) and from emotional causes, goes to prove that the *nervous system* (italics ours) and not the vascular system, is the starting point of puerperal convulsions, and that the changes observed in the kidneys of women dying from convulsions are too trivial and transitory to indicate a long-continued congestion." * * *

Prof. Barker, in speaking of certain pre-disposing causes of convulsions in pregnant women, says, that to them "I should add hereditary and atmospheric influences. By the former term, I simply mean that an excessively nervous temperament has been inherited."

I would further demonstrate the neurotic origin and nature of puerperal eclampsia with previous individual pre-disposition existing *ab initio*, by citing Sir J. Y. Simpson, who, in turn, quotes Dr. Churchill, to the effect that, "he has seen puerperal insanity accompany or follow puerperal convulsions in more than one case, and instances of the same kind are alluded to by Drs. Reid, Merriman, Gooch, Esquirol and others." "Dr. Ingleby seems to have noticed, in repeated examples, the lapse of puerperal convulsions into mania." Dr. Simpson, it must be confessed, whilst quoting, as I have stated, the above views, does not accept the conclusion of the inter-association of these affections, as claimed by the above writers, but offers an interpretation of his own, not consistent with the theories and convictions of the authorities which have just been cited.

Dr. Meigs refers to what he calls "convulsibility," and certainly leans to the neurotic origin of puerperal eclampsia when he teaches that, "so convinced am I that the disorder is one of the effects of the *impetus sanguinis* and the cerebral and spinal hyperæmia, and a result rather of the quantitative than of the qualitative state of the blood, that

I have placed at the head of this article the words puerperal convulsions instead of the words puerperal eclampsia, which, if I had obeyed the dictates of our modern fashion in medicine, I should have chosen for its caption." At another portion of his chapter on this disease, he says: "I feel very sure that precisely the same sort of convulsions as those that attack pregnant women do affect both men and children, as well as virgins," etc.

Dr. Playfair says that "the key to the liability of the puerperal woman to convulsive attacks is, no doubt, to be found in the peculiar excitable condition of the nervous system in pregnancy, a fact which was clearly pointed out by Dr. Tyler Smith, and by many other writers. Her nervous system is, in this respect, not unlike that of children, in whom the predominant influence and great excitability of the nervous system is a well-established fact, and in whom precisely similar convulsive seizures are of common occurrence on the application of a sufficiently exciting cause." "Admitting this, we require some cause to set the pre-disposed nervous system into morbid action," etc.

Hodge states that he "has long been of the opinion that these pre-disposing causes essentially depend on the *increased excitability* of the nervous system generated by pregnancy." * * * Hodge is also emphatic in his opinion, when he adds that, "this augmented 'sensitiveness,' as it is termed by Drs. Churchill and Ramsbotham, Jr., is very universally acknowledged, and is usually observed in various degrees, from the time of fecundation, through the whole process of gestation, and even for weeks and months after delivery. * * * She is more liable to neuralgia in all its forms, to spasms, cramps, cephalalgia, etc., than before fecundation had taken place. * * * *The irritability, therefore, of the nervous system, characteristic of pregnancy, is the essential pre-disposing cause of puerperal convulsions, as well as of other nervous affections.*" (Italics our own.)

Ramsbotham expresses the following opinion: "I look upon a case of puerperal convulsions to be, in fact, one of apoplexy, only that we have superadded to the common

apoplectic phenomena violent spasmodic contractions; and this symptom is dependent upon the irritable and excitable state of the nervous system, always in a greater or less degree accompanying pregnancy and parturition."

Again, the last-mentioned author adds: "I consider, then, the case of puerperal convulsions to be exactly analogous to that of infantile convulsions, and they are both of them allied to apoplexy, the causes, however, acting upon the system under a highly excitable state."

Cazeau, who believes the presence of albumen "to be the dominant fact in the etiology of puerperal convulsions," nevertheless later admits that "a review of all the causes will enable us to explain their mode of action. It is evident that all of them have a tendency to produce an irritation of the nervous centres." He then refers to Scanzoni for a confirmation of his views, and quotes to the latter's well-known divisions of (1) Reflex Convulsions, (2) Spinal Convulsions, and (3) Cerebral Convulsions. *Leishman* thinks that "the constitutional sensitiveness, to which we have already more than once referred as eminently characteristic of pregnancy, can scarcely fail to display itself in its relation to the nervous system and its all-pervading influence." * * * "What more likely, may we not infer, than that the force of the nervous system thus discharged may, by derangement of excited signals, be reflected upon the wrong track, and thus cause convulsive action in unlooked-for quarters, and frequently disaster as the result." Again, he states: "If, on the other hand, the dissections of Frankenhäusen are to be held as demonstrating a direct connection with the nerves of the uterus, we must admit it as possible—as was indeed long before conjectured by Tyler Smith—that the nervous system, and not the muscular system, may, after all, be the starting point of puerperal eclampsia."

Trousseau taught, in his Clinical Lectures, that "if you remember what I told you of epilepsy and of infantile convulsions, it is unquestionable that the *nervous excitability*, which, in some women, manifests itself during preg-

nancy by convulsive seizures, and later by hysterical symptoms, or more or less curious nervous disorders, is a predisposing cause which should engage the attention of the physician." "Mania is a pretty common result of eclampsia." * * * "Paralysis is one of the most frequent of the unpleasant sequelæ of eclampsia."

Prof. Henry Fraser Campbell, of Georgia, in one of the best articles that has ever been written on eclampsia in this country—a really splendid contribution to the literature of the subject—states, among his conclusions, "that the pathology and proximate cause of puerperal eclampsia cannot be safely assigned, in the present advanced though inconclusive stage of scientific investigation, as being even yet legitimately removed beyond that one, which may be generalized in its proximate etiological relation, and assignable to *every form of convulsive action*—the tetanic, the hysteric, the infantile, the epileptic, or the anomalous—namely, *nervous irritation*."

It seems to us impossible to impartially weigh the quotations just made from these numerous eminent authorities, and not feel impelled to adopt the neuropathic origin of puerperal eclampsia. The concurrence of their views is not a little astonishing.

Having, therefore, at least to our satisfaction, successfully established (1) that the disease pre-supposes an inherent individual pre-disposition on the part of its victims, and (2) that the nervous system is the point of departure of all the subsequent morbid manifestations, constituting the primary link in the pathological chain of sequences, it now remains for us to study other collateral facts and phenomena.

The next step, therefore, is to carefully consider the influence of the blood conditions in connection with puerperal convulsions. Hydræmia, anæmia, leukæmia, and the retention of certain effete matters in the circulating fluid, of course, are no unimportant factors in the production of increasing nerve irritation, the irritability of the nervous centers increasing *paripassu* with the qualitative changes in the blood.

Without bestowing any consideration upon the question, now so thoroughly exhausted, as to possible deleterious results from the accumulation of urea, or possibly of carbonate of ammonia in the circulation, we will direct our attention to the presence of blood changes which are more palpable, and less problematical.

That the increase of the watery constituents of the blood, and the diminution of its red corpuscles is an admitted fact in pregnancy, none will deny.

Then again, the necro-biotic changes, which are of constant occurrence, are most potential in their toxic effects, being productive of increasing cumulative nervous irritability.

A blood surcharged with excrementitious materials, and as we have already seen, otherwise altered in its relations and the proportionate changes of many of its main constituents, is in no condition properly to subserve the requisites of nerve nutrition.

The nerve functions being thus perverted and impeded, consequent increasing nervous irritability will be a necessary concomitant condition.

Not unlike the spinal cord, poisoned by strychnia, will the irritable cerebro-spinal centers resent their treatment in explosive energy, especially in the presence of that *inherent predisposition* which renders them peculiarly rebellious.

Then again, we well know that, as the uterus enlarges, its lymphatics will correspondingly enlarge, and correspondingly also the lymphatic ganglia in the groins and lumbar regions and produce a physiological leucocytosis.

This is to be explained, according to Virchow, as follows : " In proportion as pregnancy advances, as the lymphatic vessels in the uterus dilate, and the interchange of material in the organ increases with the development of the fœtus, the lymphatic glands in the inguinal and lumbar regions become considerably enlarged, and that sometimes to such an extent, that if we were to find them in a similar state at any other time, we should regard them as inflamed. This enlargement conveys into the blood an increased quantity

of fresh particles of a cellular nature, and thus from month to month the number of colorless corpuscles augments.”

This increasing preponderance of white blood discs must invite still further an angry condition of nervous force, with a tendency to misdirected energy in persons with an unstable constitution of nervous element.

With such established conditions of blood change, which must well-nigh constitute a dyscrasia of that fluid, we cannot wonder at corresponding and constantly augmenting concomitant conditions of nervous irritability, whose interpretations are based upon the plainest physiological deductions.

Trusting that thus far we have fairly placed upon a solid foundation of fact:

I. Individual predisposition :

II. The *neurotic* origin of puerperal eclampsia from previous conditions of *nervous irritability* :

III. The influence of certain blood-changes upon the nervous centres :

—it yet remains for us to trace from these points of departure, the subsequent developments which induce the explosions into convulsive action of the cumulative influences of previously pent-up *nervous irritability*.

The convulsive seizures, we have assumed, therefore, *primarily*, have their point of departure from a general condition of nervous irritability, inherent to pregnancy, in consequence of many dominant conditions and changes with which it is attended. We must not lose sight of the fact, however, that independently of the *acquired* nervous irritability, *individual predisposition* is a most important factor, never to be forgotten in our study of the etiology of puerperal eclampsia.

The convulsions, however, at least *secondarily*, owe their existence to the most varied or antagonistic pathological conditions. In some cases, hyperæmia, and in others, anæmia, constitute the predominating disturbances leading to their development.

In this connection, the key to the solution of the patho-

logical problem depends upon the presence or absence of the well-known causes of vaso-motor irritation or its opposite condition of paralysis.

If irritative influences dominate the situation, then contraction of the cerebral blood-vessels and concomitant anæmia will necessarily prevail.

If, on the contrary, inhibitory or paralyzing conditions of the vaso-motor centres exist, then resulting congestions, with consequent over-distension of the cerebral blood-vessels, will be the factors productive of the eclamptic manifestations.

Leucocytosis, hydræmia, rapid tissue metamorphoses, digestive difficulties, and many other depressing states which accompany pregnancy, will not infrequently so paralyze the vaso-motor system, from their exhaustive influences, as to induce hyperæmias dependent for their existence upon vaso-motor paralysis. Reflex irritative transmissions from the highly excited sexual system; certain inherent tendencies resulting in too slight resistant power of the afferent blood-vessels, whether congenital or acquired; the propagation of irritative waves of nerve excitement from the various splanchnic cavities, from the ganglia of the great sympathetic, are not to be overlooked in their relationship to the etiology of puerperal convulsions.

The fact still remains, however, that anæmia and hyperæmia are the *secondary* links in the pathological chain of sequences which we have principally to study in analyzing the pathology and etiology of puerperal eclampsia.

May not the well-known efficacy of chloroform, therefore, be offered as a practical illustration corroborative of our theory: In the vastly larger preponderance of cases in which vaso-motor paralysis, with consequent congestions exists, as causative of puerperal eclampsia, chloroform calms the convulsions by producing anæmia of the brain, through its influence on the vaso-motor ganglia, by which the over-distended blood-vessels are controlled, through their individual vaso-motor nerves.

On the other hand, upon the brain in which anæmia has

been superinduced by the previous spastic condition of the blood-vessels, attributable to the erethism of their vaso-motor ganglia, chloroform not improbably causes the cessation of the convulsions by directly exercising its well-known anti-spasmodic powers upon the contractile fibres of the cerebral blood-vessels themselves. This assumption of its action will explain the apparently paradoxical fact of the relief afforded by chloroform in both cases where direct pathological conditions of antagonism exist. It is a fact that in definite conditions and at certain times, an agent will operate upon a part or organ in one way, and at a different time and under dissimilar conditions, in another.

We all know that the same man may at one time be excited by opium and at another calmed by the same agent.

The amount of chloroform administered, and the duration of its administration must be considered in observing the result of its effects upon the nervous system.

"It is well known that it at first induces contraction, and afterwards dilatation of the pupil." Prof. H. C. Wood observes "that the very careful experiments of the English Chloroform Committee, (*Med. Chirurg. Trans.*, Vol. xlviii., p. 326), proved that after the first half-minute of the inhalation of chloroform there is progressive lowering of the arterial pressure. It would, *a priori*, appear that this is to some extent due to a vaso-motor paralysis; but Sansom and Harley state that there is a spasm of the small vessels, which can readily be seen to occur in the web of the frog during chloroformization. Not until the third stage is reached, according to these authors, do these vessels relax into dilatation.

If these observations are correct, chloroform first stimulates, and afterwards depresses the vaso-motor centres. Elsewhere in this work I have dwelt upon the fallacies of the observations of such as those just quoted; and the experiments upon arterial pressure, of Prof. H. I. Bowditch and C. S. Minot, (*Boston Medical and Surgical Journal*, May, 1874), prove that in chloroform anæsthesia the fall of pressure is due to a paralysis of the vaso-motor

centre. They found that after the exhibition of the drug in curarized animals galvanization of a sensitive nerve is followed by no rise of pressure, or a very slight one, and that compression of the carotids did not cause the customary vaso-motor spasm and rise of arterial pressure."

Notwithstanding these conclusions the well-known views of Nelaton, as quoted by Marion Sims and other recent writers, would seem to prove incontestably that at least in the early stages of chloroform narcosis, cerebral anæmia is the greatest source of danger to the patient and apprehension to the surgeon. Hence in eclampsia resulting, as is most frequently the case, from vaso-motor paralysis, which in turn superinduces fluxions, the vasal spasm resulting from the action of chloroform on the vaso-motor centres affords the explanation of the admirable therapeutic results so promptly furnished by the remedy. Puerperal eclampsia may also result secondarily from collateral œdemas, developed from previous intense primary congestions, which will in turn necessarily produce districts, more or less limited, of cerebral anæmia. In these conditions of cerebral congestions a vicious circle of pathological effects is established, as it is well known that these collateral œdemas, with consequent anæmia, superinduced by pressure of the serous transudations upon the cerebral capillaries, may again, in turn, produce collateral hyperæmias in some remote portions of the brain.

Therefore, the well established laws of pathology as referable to cerebral congestion, are of the utmost practical importance in explaining many of the phenomena associated with the etiology of puerperal eclampsia.

Reflex excitability is the next and last point to be studied in the development of the position we have maintained in this paper.

No physician can fail to attach due importance to the powerful influences of reflex transmissions from an over-excited sexual system upon nervous centres whose polarity has been so greatly augmented by the various influences exercised by pregnancy, which we have already fully con-

sidered. The individual neurotic predisposition to eclampsia having been assumed, it is easy to understand how each successive wave of irritation, transmitted to the greatly excited cerebro-spinal axis, will more and more endanger the explosive action which will sooner or later culminate and relieve itself in puerperal convulsions. There can be no doubt as to the high degree to which the spinal centres are exalted in these cases. In fact, in pregnancy, it is not assuming too much to believe that spinal action predominates to a very great degree—hence, the conditions are most favorable for the production of eclampsia—cerebral action, though not in abeyance, being more or less eclipsed by the influences exaggerating the functional activities of the lower order of nerve centres. Analogous pathological states teach us much in this respect. If the stormy manifestations and contortions of hystero-epilepsy be provoked by the erethisma radiating from the focus of a hyperæsthetic ovary, how much more readily can we comprehend the violence of the reflex phenomena which originate all attacks of puerperal eclampsia.

Then again, if the marvellous results attained by Charcot, through impressions exercised upon the retina, producing catalepsy and somnambulism at will, are explained only by reflex action, we cannot feel at a loss to attach the proper importance to the reflex irritations arising from the extraordinary perturbations associated with the changes in a woman's system entailed by the existence of pregnancy.

Still less will we marvel at the production of puerperal eclampsia, when we bear in mind that gestation is sometimes followed by reflex paraplegia, even hemiplegia or amaurosis—(Churchill).

If the irritation of worms in the intestinal canal, the disturbances of dentition in children, disorders and even functional disturbances of the urinary organs, uterine disease, dysmenorrhœa and metritis, will at times produce paralysis, what are we to expect in pregnant women of neurotic diathesis, whose nervous systems are constantly

perturbed by the evolution of sources of irritation to which for a period of nine months they are subjected?

If melancholia and other forms of insanity may in certain cases *be produced at will*, as is vouched for by such authorities as Schroeder Van der Kolk, Maudsley and many others, simply by removing or replacing a pessary, so as to permit of or prevent a displacement of the uterus, —need we be astonished that the most violent convulsive attacks may at any moment supervene during utero-gestation, as expressive of irritations from disturbances of the sexual system, transmitted to already super-excited nervous centres, without any necessary concomitant disorders of either the urinary or any of the other excrementitious organs.

Pregnancy, therefore, like certain remedies or poisons, (strychnine particularly), will augment the reflex excitability of the spinal cord to a wonderful degree, which, in its turn, will be exaggerated by the anæmia, chlorosis and necrobiotic changes continually occurring under the influence of the former.

Chloroform, in addition to the effects which we have attributed to it as exercised upon the vaso-motor system, acts favorably in these cases, because, according to Brown-Sequard, *no remedy equals it as a means of reducing reflex excitability*,—and reflex excitability is one of the great factors to be studied in the etiology of puerperal eclampsia.

Therefore, in conclusion, we have seen as intimately associated with the pathology of puerperal eclampsia,

1. A special inherent tendency, or individual predisposition upon the part of the nervous centres themselves to a loss of normal equilibrium from disturbing causes, no matter how slight or trivial in character

2. The neurotic origin of all cases, favored by an increasing nervous irritability, keeping pace *pari passu* with certain blood deteriorations.

3. Antagonistic conditions of cerebral anæmia and hyperæmia in different cases, as secondary results of varying conditions of excitability, or depression of the vaso-motor centres.

discovered fluctuation of a moderate quantity of fluid, but quite distinctly. Percussion was dull in either flank while the patient was on her back, and extending from the umbilicus to the pubis; above the umbilicus and upwards to the ensiform cartilage, there was resonance, (tympanitic).

There was general tenderness on pressure over the abdomen, perhaps more marked in the right hypochondrium, but nowhere very great; otherwise the patient complained of no pain whatsoever.

Physical examination could discover no enlargement of either liver or spleen, nor any localized or circumscribed tumefaction at any portion of the abdomen.

Exploration of the lungs was negative in its results—but a systolic cardiac murmur, most intense at the base of the heart, was plainly audible—no venous murmurs could be heard.

Some days previous to my taking charge there had been some little irritability of the stomach, but this had subsided, and now the organ was quiet, and tolerant of the most substantial food, for which she had a good appetite. The tongue was clean; the bowels were loose and she had two or three alvine discharges during the twenty-four hours—small in quantity, consisting seemingly mostly of mucus mixed with bile, being of a light-yellow color, very much in appearance like the discharges of an infant. The evacuations were accompanied by no pain. The urine was normal in quantity and color—and microscopic and chemical examination discovered nothing indicative of disease. The pulse was small, compressible and rapid, about 130 per minute—the skin dry, but not perceptibly hot to the touch—thermometer showed an elevation of 103°F.

Microscopic examination of the blood indicated a paucity of red corpuscles with possibly an increase in the proportion of the white.

There was no œdema of the feet, ankles, nor of any other portion of the body.

Inasmuch as the main question was now one of diagnosis, which I was yet unwilling to hazard with any degree of confidence, the only indication for treatment was that derived from the appearance of the intestinal discharges, which indicated a catarrh of the intestinal tract, with some obscure hepatic derangement. For this condition a few grains of calomel were given in divided doses, which was followed by a

decided change in the stools; these became in a day or two less frequent, more copious, and more normal in appearance. From this date until the 17th of November, she was kept constantly on quinine and salicylic acid as antipyretics, while a liberal and nutritious diet, with a moderate quantity of stimulants, wine and brandy, was allowed. By this time I had come to the conclusion that the case was one of "Tubercular Peritonitis," and consequently held out very little hopes to the parents and friends, of her recovery. The temperature ranged constantly from about 101°F. to 104° during the twenty-four hours, the depression and elevation bearing no constant relation to any particular hour of the day—there were also occasionally slight chills and shivering.

Nov. 17th. At this date, her parents being dissatisfied because of my want of positiveness in regard to the diagnosis, withdrew her from my care and placed her under "Homœopathic" treatment, where she remained until December first, when I was recalled to the case.

She had been subjected by the disciples of Hahnemann to heroic treatment—viz: active purgation, (elaterium, I judge, from the description given me), and steam baths, with a view to remove what they called dropsy! I found, on resuming charge, that her stomach had, whether as a "post hoc" or "propter hoc" of the medication, become deranged, and that she had frequent watery alvine discharges, while the abdomen had become much more distended, producing decided discomfort; there was now some slight dyspnœa observable, and a short, hacking cough, at times quite annoying. The temperature had been regularly observed and showed the same curves. The abdomen now measured at the umbilicus 36½ inches, and I determined to tap and withdraw the fluid, which I ventured to declare was purulent. There was now flatness on percussion everywhere, except immediately in the epigastrium.

On the 4th of December, I introduced a small trocar and canula in the median line, about mid-way between the umbilicus and pubis, which gave exit to *two gallons* of apparently pure pus, of a creamy consistence and color, and free from odor of any kind; I applied a bandage during the operation, which was well borne in a sitting position. The patient experienced much relief from the procedure, the dyspnœa and cough disappearing within the first twenty-four or thirty-six hours. A most decided effect

was manifested upon the temperature within the first twenty-four hours, the point of depression being as low as $99\frac{1}{2}$ and the elevation not above $102\frac{1}{2}^{\circ}$. The pulse was not appreciably altered. The kidneys acted more freely, while the functions of the bowels were much improved, the discharges presenting the appearance of perfect health. The appetite was restored and the patient enjoyed food and drink, of which she partook without stint, judgment being exercised in her diet.

She was now put upon quinine, from 12 to 16 grains in twenty-four hours, with $\frac{1}{2}$ drachm doses of syrup of iodide of iron, well diluted, three times a day. The patient appeared to improve for about ten days, gaining in strength so that at the end of that time she was able to sit several hours in a chair and even to walk around the room with a little assistance. About the eleventh or twelfth of the month it became apparent that the fluid was re-accumulating, and she began again to have chills, and the temperature reached a higher point—without, however, disturbing the functions of any organ. Her appetite and digestion continued good. She began, however, to lose strength. The iodide of iron was now discontinued, and cod-liver oil and extract of malt substituted.

The abdomen continuing to grow larger from day to day, I now advised that a free opening be made, with a view to drainage and antiseptic washing of the peritoneal cavity, as offering the only chance; and desiring a confirmation of my views before proceeding to so important a measure, Prof. John T. Hodgen was invited, on December 30th, to see the case with me, and, concurring entirely in my view, made an incision with a bistoury in the median line at the point of previous puncture, the extent of cutaneous incision being about two and a half inches, that through the peritoneum about one inch. There escaped freely two quarts of odorless pus, of somewhat thicker consistency than that withdrawn on the previous occasion. Several bits of stringy matter, apparently coagulated lymph half disintegrated, were washed out in the current. The cavity having been emptied as thoroughly as possible, a bit of lint was fixed in the wound and an extra dose of quinine administered. The patient bore the operation with great fortitude, and without anæsthetics, and suffered no inconvenience whatsoever.

Measurement of abdomen at umbilicus was 32 inches before the operation.

The same evening the thermometer marked 100° F., the following morning 99° F., the patient having passed a comfortable night, free from all discomfort except a slight soreness at the seat of the wound. This morning, December 31st, I removed the plug of lint, and with a large syringe gently drew out about one quart of pus from the peritoneal cavity, the patient being placed upon the right side. I now inserted an india-rubber tube about the size of the finger through the wound; passing about four inches into the cavity of the abdomen, retaining it in position by pinning it to adhesive straps laid across the incision. About two feet of the tubing hung out of the wound and by the side of the bed, thus conducting the accumulating pus to a vessel placed to receive it.

January 1st.—Temperature last evening 100° F., this morning 98° F. There occurred considerable discharge during the night, but none this morning. Attempted to clear the tube by suction with syringe, but failed; removed tube, and found the end completely plugged with ragged lymph matter about two inches long; after cleaning tube, attempted to re-introduce it, but failed, as it seemed to abut against intestines which were in contact with abdominal walls. Pus still odorless; bathed wound with weak solution of carbolic acid, and re-inserted a pledget of lint.

January 2d.—Temperature last night 101° F.; this morning 98°. Patient passed comfortable night, and quite cheerful: appetite continues good; succeeded in re-inserting drainage tube, and injected about one gallon of carbolized water into abdominal cavity, removing thereby considerable pus, which now has slightly fetid odor.

January 8th.—Have continued to wash out the cavity daily. For the last few days there has been a discharge of several ounces of grumous pus, slightly offensive, through the tube; the temperature remains the same, the curve being from 99° to 101° F. The matter discharged, when examined under the microscope, shows very few pus corpuscles, but mostly granular material. I cannot to-day inject more than two quarts into the abdominal cavity without producing a sensation of fulness to the patient. The pulse is slower—about 120 per minute, and stronger; appetite good; complexion more natural; patient cheerful, and claiming to be gaining in strength.

January 9th.—Rested well last night. Temperature at 9 P. M.

on 8th, $102\frac{3}{4}^{\circ}$; 11 A. M. this morning, 99° . Pulse, 125. Ate heartily of breakfast. Has had less discharge by drainage-tube during last twenty-four hours. Washed out cavity thoroughly, throwing in about one and a half quarts each time, until odor was quite removed and water returned comparatively clean.

January 10th.—Passed comfortable night. Ate good breakfast this morning. Temperature at 8:30 P. M. yesterday, $99\frac{7}{8}^{\circ}$. Less discharge from tube since yesterday. Washed out cavity thoroughly with carbolized water.

January 11th.—Condition unchanged. Temperature last evening at 8 P. M., $101\frac{1}{4}^{\circ}$; this morning at 10 A. M., $99\frac{1}{4}^{\circ}$. Washing repeated.

January 12th.—General condition unchanged. There has been increased discharge from tube. Matter more fetid. Temperature on 11th, 4:30 P. M., $101\frac{1}{4}^{\circ}$; 7:30 P. M., $103\frac{3}{4}^{\circ}$; on 12th, 1:30 P. M., $101\frac{3}{4}^{\circ}$; 9 P. M., $103\frac{1}{4}^{\circ}$. Cavity washed.

January 13th.—General condition same. Sat up for about three hours yesterday afternoon, and bore it without fatigue. Discharge continues increased, probably from a new focus. Matter examined microscopically by Prof. Michel showed chiefly new *tubercular material*, with a few scattered *pus corpuscles*. Temperature 1 P. M., 103° ; 7 P. M., $101\frac{3}{4}^{\circ}$. Cavity washed out.

January 14th.—General condition continues good. Temperature 2 A. M., $103\frac{3}{4}^{\circ}$; 10 A. M., $101\frac{1}{4}^{\circ}$; 1 P. M., $99\frac{3}{4}^{\circ}$. Feter of discharge very great. After thoroughly cleansing cavity, washed out with tinct. iodine, about 1 drachm to a quart of water. Temperature rose in evening at 7 P. M. to $104\frac{3}{4}^{\circ}$.

January 15th.—Feter of discharge somewhat less—about same in quantity. Continue iodine. and cavity washed twice in 24 hours. She feels quite comfortable, sitting up for several hours in an arm chair. To take again $\frac{1}{2}$ drachm syrup iodide iron, three times a day. Temperature 11 A. M., $100\frac{1}{4}^{\circ}$; 4 P. M., $103\frac{3}{4}^{\circ}$.

January 16th.—Continue same treatment; namely, iod. iron, quin., and two washings with tinct. iod. Much less odor to discharge. Temperature 10 A. M., $100\frac{1}{4}^{\circ}$; 7 P. M., $101\frac{3}{4}^{\circ}$; 10 P. M., $102\frac{1}{2}^{\circ}$. Patient continued in same condition to morning of 21st. Quite comfortable, with good appetite, regular action of bowels, and resting well at night, the treatment being in every respect the same. On the 21st, I found that the previous evening there had been some uncomfortable gaseous distension

of the abdomen, which now, however, had subsided to a great degree. The discharge from the drainage-tube was perfectly odorless, and quite changed in appearance, being that of laudable pus. On examination with microscope by Prof. Michel and myself, it was seen to consist, for the most part, of *pus corpuscles*, with a *very small* proportion of broken-down *tubercular* matter.

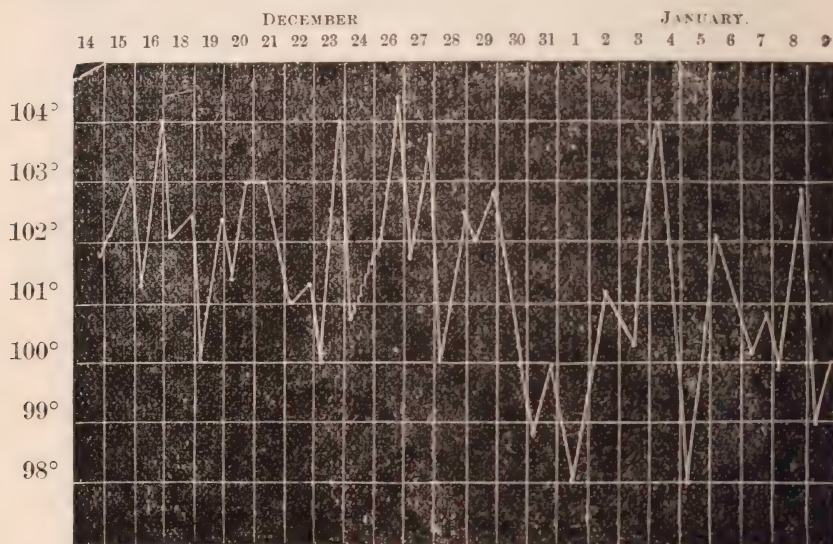


Chart showing Temperature during 25 Days.

Temperature from 17 to 20th as follows:

January 17th.—10 A. M., $98\frac{1}{2}^{\circ}$; 7:30 P. M., $102\frac{1}{2}^{\circ}$.

January 18th.—11 A. M., $98\frac{1}{2}^{\circ}$; 4 P. M., $102\frac{1}{2}^{\circ}$; 8 P. M., $103\frac{1}{4}^{\circ}$.

January 19th.—11 A. M., $97\frac{3}{4}^{\circ}$; 5 P. M., $104\frac{1}{2}^{\circ}$; 7 P. M., 105° .

January 20th.—10:30 A. M., 98° .

January 21st.—Patient, notwithstanding the high evening temperature of the last few days, seems to be quite comfortable. There has been no disturbance of appetite, while bowels and kidneys continue to perform their functions regularly; tongue clean, and pulse about 110. As the discharge seems to be almost altogether purulent and perfectly free from odor, refrained from using any antiseptic washing, discontinued the syrup of iod. of iron and substituted glycerole of hypophosphites, internally, and quinine. There is some cough, which becomes at times annoying, but physical signs are negative.

February 5th.—Since date of last notes, the condition of

patient has slowly but steadily improved. She has gained in flesh and strength. Her appetite and digestion continue good. There has been a gradual abatement of the disposition to febrile action, with only an occasional elevation of the temperature above 100°F. The discharge from the abdominal cavity has been mostly purulent, with an occasional admixture of tubercular material, as shown by the microscope, and from time to time there has been some slight odor, which was readily removed whenever occurring, by antiseptic washings of the cavity, these being repeated, not constantly, but according to above circumstances. This has not been done for the last four days, since the discharge has been perfectly free from odor. The abdominal walls are soft and natural to the touch. Prof. John T. Hodgson visited the patient this morning, and observed her condition. Thermometer at 12 M. showed 99°F. Patient sits up in an arm-chair for four or five hours and engages in needle-work and reading without fatigue.

February 9th.—She had a very severe chill yesterday, lasting for half an hour or more, followed by considerable elevation of temperature, during which there was great flushing of the face; but after the subsidence of the febrile action she seemed to feel as well as usual. There is again some odor to the discharge, which consists, from appearance, mostly of tubercular matter, and contains much thready and flocculent material. Washed out cavity with solution of carbolic acid.

March 24th.—Since last date, patient has continued in a tolerably fair general condition, not having had any return of chills or fever until the present time, when constitutional disturbance is again manifested in chilly sensations and an elevation of temperature. As the discharge seemed to be almost entirely purulent, free from odor and much diminished in quantity, I removed the tube and inserted a tent, using for this purpose a skein of flax, laying over it oakum well sprinkled with carbolic solution. At this date she felt so strong, and the weather being mild and balmy, she went out for an airing in an easy-riding carriage and enjoyed it very much, with apparently little or no fatigue.

March 25th.—There has occurred since the excursion of yesterday, a sudden and greatly-increased discharge from the abdomen, of what again has the appearance of tubercular material, with, however, very little odor. There is now again some eleva-

tion of temperature, and the appetite is much diminished, although the bowels continue to act freely and regularly. She has taken internally, for the last ten days or two weeks, only the quinine, with pancreatic emulsion and some stimulants.

March 29th.—As the discharge is again somewhat offensive, I washed out the cavity, which seems to be quite limited, its capacity being about half a pint. Her general condition is not so satisfactory, her appetite is poor and capricious, and she frequently becomes nauseated and occasionally vomits after eating. She declares herself to be weaker, yet she sits up daily in an arm-chair for several hours, and is cheerful and hopeful.

April 2d.—The washings have been continued, and to-day I used a solution of sodium chloride, instead of carbolic acid, which very quickly and perfectly deodorized the discharges, continuing to wash out the cavity until the returning fluid was perfectly free from smell. Appetite poor; abdomen soft; but in right hypochondrium there is an ill-defined hardness, which seems to be an enlargement of right lobe of the liver.

April 19th.—Since last report, April 2d, there has been some change in her condition. She has undoubtedly grown somewhat feebler, and her digestive powers have become more or less impaired, so that she is made uncomfortable and complains of a sensation of oppression after eating, and more frequently vomits her food. Enlargement of the liver can very readily be made out by palpation and percussion, while there is considerable tendency to pressure over the enlarged organ. The rest of the abdomen is soft and pliable, and only occasionally distended by air, which can be partially forced by pressure from the opening made in its wall. The cavity has been regularly cleansed with a carbolized solution, or with one of sodium chloride, which seems to be equally efficient as a deodorizer. The escaping pus is occasionally and only slightly odorous, but does not diminish materially in quantity, containing from time to time a variable proportion of grumous, cheesy matter. On the 17th, the matter vomited consisted largely of bile, and she had at the same time griping pain in the bowels. On the 18th, in the morning prescribed four powders, containing 1 gr. each of hyd. chl. mitis., and this morning the nurse reported that she had had four stools, larger and darker than usual, and for the last twenty-four hours there has been little nausea and no vomiting. Continue quinine, pancreatic emulsion, stimulants in moderation, and fluid nourishment.

April 23d.—Since last report there has been less irritability of stomach—but there is constantly considerable gaseous distension of the epigastric and umbilical regions, giving tympanitic percussion; tenderness persists in the right hypochondrium and enlargement of the liver is very well marked, the lower margin of the organ being readily felt extending about three inches below the borders of the ribs. The superficial veins of the abdomen have become enlarged and conspicuous. Within the last thirty-six hours there has been developed notable œdema about the foot and ankle upon the right side. The abdominal parietes in the hypogastric and iliac regions continue soft and pliable, and pressure in these localities facilitates the discharge of the pus from the cavity, which now seems to be within the pelvis.

The quantity of pus evacuated in twenty-four hours amounts to about six ounces, and is slightly offensive—continue to wash the cavity with sol. sodium chloride.

April 24th.—She was removed this morning to the country, about sixteen miles from the city, and her father reports that she bore the trip, (by railroad), very well, complaining little or none of fatigue.

April 27th.—I visited the patient this afternoon and found her much changed in appearance. Her *facies* is bad—nose is pinched and her face is marked by a deadly pallor—complains of great prostration. She has now no disposition for food, and can only be induced to take a little milk or beef tea, and occasionally a little stimulant. Has much diarrhœa, the stools being small in quantity but frequent; are highly offensive and of a light-yellow color; no appearance of pus in the alvine discharges: no pain on going to stool. Appears to have very little control over the sphincter ani—so that if not put immediately upon the chamber when the desire is urgent, passes the contents of the bowels in the napkin. Pain still persists on pressure in the right hypochondrium with much evident enlargement of the liver; abdomen tympanitic, except in hypogastric and both iliac regions. Discharge from wound about same quantity in twenty-four hours, but more offensive in character, more so than at any period of her illness. The cavity was washed out with a carbolized solution until completely deodorized, and prescribed an astringent mixture for diarrhœa, and a mixture of chloral hyd. and bromide potass. to produce sleep, as she had not rested for two or three consecutive nights. There is much œdema, confined to right leg and extending from foot to the thigh.

May 1st.—Saw her this afternoon and found her very much worse in every respect—diarrhœa constant and uncontrollable; complained of much griping pain in the bowels. Disposition to sleep more or less constant—respiration more frequent and sighing—pulse very feeble, about 130. Evidently sinking.

May 2d.—Died quietly this morning without a struggle.

REMARKS.—The case of which the details have just been given, I consider to be of very great interest; first, because of its exceptional character; second, on account of the very great accumulation and discharge of purulent and tubercular material from the abdominal cavity; and third, on account of the method of its treatment, which, though unhappily failing to cure, yet doubtless was the means of prolonging life, and suggests at least the possibility of saving life, in a proportion however small, of cases occurring in an affection which has very generally been regarded as uniformly fatal.

The fatal termination of this case doubtless, in the minds of many, removes the doubt as to its diagnosis, which might have been entertained if it had been more fortunate; and, although unfortunately a post mortem examination could not be had, I think a careful analysis of the history and symptoms, both by the direct method and by the process of exclusion, can leave no suspicion of its correctness. The existence of an exclusively peritoneal inflammation of a tuberculous nature, we are aware, has been frequently denied. Louis affirms that tubercles are *never* met with in the peritoneum, without being met with in other localities in a more advanced state, and in abundance, in the lungs. Says Watson: "This rule is not universally true. I have seen more than one instance of well-marked granular (tubercular) disease of the serous membrane of the abdomen, without a single tubercle in the pulmonary tissue." In like manner, McCall Anderson relates several cases of tubercular disease limited exclusively to the peritoneum, in his published clinical lectures, which terminated favorably, and in which he admits the possibility of doubt on the part of the profession as to the diagnosis, from the preconceived belief very generally entertained, that the termination of such cases was necessarily fatal. We believe with Anderson and Watson, that "perhaps we think too despairingly of these cases," and that "when fatal, their true nature becomes manifest, but it cannot be made so when the patient recovers, if he ever does recover." Watson

cites, as does McCall Anderson, the encouraging case of Spencer Wells' in which the diagnosis was uncertain, and in which an exploring slit was made in the peritoneum, in the presence of several assistants. There was no ovarian cyst, as seemed most probable. A large quantity of opalescent fluid escaped, and the whole of the peritoneum exposed was seen to be studded with multitudes of tubercles. The great mass of intestines were bound down by inflammatory adhesions. The patient was well and in good health two years after the exploration. Dr. Bristowe, in his article on Tubercles of the Peritoneum, in Reynolds' System of Medicine, mentions out of forty-eight cases of tubercular disease admitted into St. Thomas Hospital, *two* cases in which the tubercular deposit was limited *exclusively* to the peritoneum.

In the absence of post mortem examination in our case, we cannot *know* whether or not there existed tubercular deposit in other organs or portions of the body than the peritoneum; but most careful and oft-repeated examinations negatived such conclusion, at least as primary lesions.

Physical examination of the abdomen indicated that, in the progress of the disease, the intestines became more or less adherent, and finally agglutinated together *en masse*, so as to interfere somewhat with their functions, and finally with the circulation through the venous system of the abdomen and lower limb of right side. The mode, and suddenly rapid termination by diarrhœa, would seem to indicate that the mesenteric glands and mucous coat of small intestines had finally become implicated.

The treatment by free evacuation and washing of the cavity with antiseptic fluids, was, so far as I am aware, an innovation, but was justifiable on the ground of the almost if not quite universal fatality of the disease, and from the conclusion that no more inflammation could be excited, and no more harm done by the procedure, than would result from the retention of the pus within the peritoneal cavity.

SYME'S AMPUTATION OF THE ANKLE-JOINT.

BY JOSEPH W. THOMPSON, M. D., PADUCAH, KY.

[Read before the Southwest Kentucky Medical Society, at its meeting in Paducah, Ky., May, 1879.]

I was requested by Dr. William Wilson, of this city, to see Henson Sullivan, colored, suffering with chronic inflammation of a strumous character. On examination, we found extensive caries of the metatarsal bone of the great toe. Dr. Wilson gave him ether, and I cut down on the bone and scraped off most of the ulcerated portion. For a time he seemed to be better, but the disease progressed, and all the metatarsal bones of that foot became carious and necrosed. Billroth, in his excellent work on surgical pathology, states that if one of the metatarsal bones becomes necrosed, all the others of that foot are likely to take on the same disease. After being confined to his room for several months, embracing the extremely hot weather of last summer, he consented to have the foot amputated. When the operation was performed he was much debilitated, from long-continued suppuration, deficient nourishment, and protracted confinement. Added to these was the most intense mental excitement through fear of the operation. As you are aware, the colored race generally are very liable to become excited with the idea of a surgical operation. These combined causes had considerably lowered his vitality, and his being thoroughly strumous and deficient in stamina, peculiar to his race, made him a very unfortunate subject for an operation.

On the 16th of February last I performed Syme's amputation, Dr. Wilson giving the ether; present, and assisting, were Drs. Brooks, Davis and Gardner and my student, M. Rosenthal, all of this place. It would be useless to describe this amputation, as it is found in all the leading works on Surgery. I performed the amputation as described by Mr. Syme, except that I did not make the opening through the posterior part of the flap for drainage. As before stated, he was very feeble when the operation was performed, therefore rallied from the shock slowly, and for ten or twelve days his recovery seemed doubtful. On the third day symptoms of blood-poison developed. I immedi-

ately removed most of the sutures, and with a Davidson's syringe injected the stump with a pint of warm water containing twenty-five drops of carbolic acid, which was repeated daily for ten days. This injection thoroughly cleansed the stump and kept up sufficient drainage. Improvement was manifest from the first injection, and he gradually recovered, resulting in a perfect union of the flap, with a good stump.

I am very sure that if we had permitted the sutures to remain for a longer time, and had not adopted some course to have cleansed the stump and invited free drainage, the patient would have succumbed to blood poison. My experience satisfies me that very few sutures should be used in bringing together flaps in amputation. If you do not wish to treat the stump as an open wound, the flaps can be sufficiently supported with the improved rubber adhesive plaster. Injecting the wound with warm carbolic acid solution in this case, and the well-established good effects of this treatment of suppurating wounds, induces me to call the attention of our society to it in the treatment of stumps with an unhealthy discharge.

REMARKS.—Dr. Stephen Smith, of N. Y., in his contributions to the Memoirs of U. S. Sanitary Commission, gives the statistics of this amputation as fifty per cent. less fatal than amputation of the leg in its lower third, and a little more than one-third as fatal as all other amputations of the leg and foot. When a surgeon can give a patient so much as fifty per cent. advantage for his recovery by making an ankle-joint amputation, instead of amputation of the lower third of the leg, it is unquestionably his duty to afford the patient that advantage. The true surgeon considers seriously the bearings in the case, and performs the operation that experience teaches will least endanger the patient's life, if that operation will meet the requirements.

Syme's amputation is regarded by some practitioners as being difficult of performance. If the plain rules given by that distinguished surgeon are observed, it is not the least complicated. The most troublesome and delicate part of it is in dissecting the flap from over the heel so as to avoid wounding the posterior tibial artery before it divides into planter branches, and making incisions through the flap. The former can be avoided by keeping the cutting surface of the knife close to the bone, and the latter by careful dissection.

Mr. Syme states that as a rule, when union of the flap does not

occur, and a good stump is not the result, the fault is not in the operation, but with the operator.

Not only in necrosis of the bones of the foot is this operation so well suited, but also in compound dislocation of the ankle-joint. Experience teaches that compound dislocation of that joint most generally requires amputation. It is true, there is an occasional recovery without the loss of the limb, or excision, but that is the exception and not the rule. The surgeon seldom, if ever, meets with a case that demands more skill and judgment than the proper management of a case of compound dislocation of the ankle-joint. It is more serious than a compound fracture, because it requires greater power to force the broad, smooth articular surface through the lacerated tissue than the sharp points of bones, and there is so much more tension of the muscles and nerves. This tension of the tissues, continuing after the dislocation has been reduced, frequently causes gangrene of the limb to result. It is my opinion that Syme's amputation at the ankle-joint is entitled to more consideration by surgeons than it generally receives. A careful investigation of the article of Dr. John A. Wyeth, on the surgical anatomy of the tibio-tarsal articulation, *American Journal Medical Science*, April, 1876, will prove very interesting.

The standard works on anatomy describe the calcarean arteries as branches coming from the posterior tibial. Doctor Wyeth made 87 careful dissections, finding that the calcarean branch, which gives the principal blood-supply to the posterior flap, is derived mostly from the external planter. "Résumé of the tabulated dissections shows, out of a total of 80 cases, in 38 there was not a single calcarean branch, derived above the terminal bifurcation of the posterior tibial artery, while in all these 80 dissections one or more good-sized calcarean arteries were derived from the external planter within one and a quarter inches of its origin.

"In 80 cases the number of calcarean branches derived from the posterior tibial was 51; in 80 cases the number of calcarean arteries derived from the external planter was 221."

It is thus evident that the principal blood supply of the posterior flap, in Syme's amputation, comes from the calcarean branches derived from the external planter; not, as heretofore taught by anatomists, directly from the posterior tibial.

Dr. Wyeth very clearly proves that operative surgery of the ankle-joint, based upon the teachings that the arterial blood-

supply of the posterior flap, in this operation, comes directly from the posterior tibial, is an error, and accounts, to a great extent, for the failures to get good flaps and serviceable stumps. Erichsen, Lister and Hamilton direct, in carrying the incision over the heel, that it should be carried well back over its point. When we appreciate the source of the principal blood-supply of the posterior flap, we can understand the danger to that arterial nourishment, by making the incision approximate so nearly the point of the heel as those distinguished surgeons advise.

The incision recommended by Professor Gross is, therefore, to be preferred, for the reason that it is more anterior, and less liable to interfere with the constant blood-supply of the inferior flap, "the calcarean branches of the exterior planter."

The operator should avoid making a redundancy of flap, but should not carry the incision too far back over the heel, as by so doing he would endanger the blood-supply of the posterior flap.

ACUTE MYRINGITIS, WITH RUPTURE OF THE MEMBRANE.

BY E. W. SAUNDERS, M. D., ST. LOUIS.

I saw the patient two hours and a half after the commencement of the attack, which began suddenly, with agonizing pain and vertigo. The severe pain lasted only an hour, some very irritating patent liniment having been, in the meantime, poured into the ear. When I arrived the patient was asleep, and when awakened, complained more of tinnitus and vertigo than of pain. There was blood in the meatus, and on examination I found blood covering the lower half of the membrane, and a pulsating reflex could be seen about where the cone should be. No injury had been received, but from the history of the case, I concluded that an acute simple catarrh of the middle ear had preceded the myringitis by several hours. The patient had taken a severe cold a day or two before, and a few hours before the severe pain began, she noticed a very unpleasant, dull, heavy sensation in the affected ear, with some deafness. A month afterwards the rent was entirely healed, and hearing almost as good as on the other side.

Evidently the excessively irritating liniment, which was applied to the inflamed part, had caused extravasations of blood between the layers of the membrane, which quickly gave way. In the ordinary course of acute myringitis such a result does not occur, if at all, until many hours have elapsed, while here it occurred just one hour from the commencement of the attack. This case shows how beneficial would be the operation of Paracentesis in any case when performed early. The patient was spared much suffering, and the ultimate result was all that could be desired.

RINGWORM OF THE PALM OF THE HAND.

BY W. A. HARDAWAY, M. D., ST. LOUIS.

D. J., a young woman of about 10 years, was referred to me by Dr. T. Estille Holland. The patient stated that a short time before she had noticed a small reddish spot in the centre of the palm of the left hand, which had gradually extended. When I saw her, the entire palm was involved in the process; the centre was of a pale red color and slightly desquamating, while the periphery of the patch, which corresponded very nearly to the boundaries of the palm, was raised and interspersed with a number of minute vesicles. The physical appearance of the eruption warranted the diagnosis of *tinea circinata*, and a microscopical examination of the scales confirmed it.

The following ointment was ordered to be well rubbed into the patch:

R	Liq. Picis Alkal.,		
	Hydrargyri Ammon., āā,	4	3i
	Ung. Pertrolei,	32	3i
			M.

Under this treatment the eruption very rapidly disappeared.

Although the *trichophyton* may attack any portion of the body, its situation in the case just detailed was certainly unique in my experience. The points of differential diagnosis involved are apparent, and need no particular comment.

TRANSLATIONS.

*Translations from the German, by A. OSTERTAG, M. D., South
St. Louis.*

NEW METHOD IN ASPHYXIA—SCHULLER.

In the Berlin *Klin. Wochenschrift*, Dr. Schuller has published the following new procedure of artificial respiration :

Whereas the asphyxiated is lying horizontally in the recumbent posture, with or without the head being slightly raised, flat on the ground or on a bed, the person who is trying to resuscitate him has to kneel either behind the patient or to sit on the bed to his left side, then to grasp with his hands from above under the right and left borders of ribs, drawing them powerfully upwards and then pressing them again downwards towards the abdominal cavity. These consecutive motions have to be executed in a *tempo* corresponding with the normal breathing; to keep the abdominal walls continually loose, an assistant holds the legs of the asphyxiated flexed in hip and knee-joint, or a pillow, may be placed under the knee-hollow. During this artificial respiration the patient's tongue has to be drawn firmly out, to prevent, by its falling backwards, the closing of the larynx, and so to hinder the free interchange of air. Instead of this manipulation, tracheotomy may be performed, which latter the Dr., for some of these cases, warmly recommends. Besides its simplicity and powerful action, this procedure differs very advantageously from all other methods, that by the upward pulling of the thorax, the air enters the lungs in a manner very similar to the natural process of respiration; by the compression of the thorax the air is again expelled with audible noise. Along with the air, liquids also if retained, are forcibly thrown out from the lungs. This procedure has proved very satisfactory in two cases, one of which was probably poisoning by oxide of carbon gas after an application of four hours duration.

[NOTE BY THE TRANSLATOR.—The above method seems especially commendable for its great simplicity, really imitating the natural process of respiration and without confusing the memory by complex directions; also the stress it lays on the pulling out of the tongue, seems to us very judicious, as this point (a most important one in all resuscitation trials) is too little dwelt upon in any of the text-books in their treatment of asphyxia.]

ON THE RESORPTION CAPABILITY OF GRANULATING SURFACES.—MAAS.

There is a generally held opinion that well granulating surfaces are a protection against external detriments. With reference to it Prof. Maas instituted experiments to investigate whether and in what manner chemical substances are resorbed by a granulating surface; whether the different forms of application, (watery solution, powder or ointment, etc.) have some influence upon it, and whether the resorption capability of wounds be altered by the different methods of wound-treatment. The interesting results of these investigations are somewhat contradictory to the ruling views. There have been instituted several hundred experiments, partly on dogs, partly on men; substances chosen have been either such whose chemical reaction is easily demonstrated, as ferrocyanuretum, etc., or such whose resorption manifested itself by their physiological action, as Atropia, Apomorphia, Pilocarpia, etc. In all cases an exact examination of urine has been made. The results were, that of all substances tried watery solutions have been resorbed just as fast as after subcutaneous injection; resorption was still faster (? Trans.) on applications in powder form, but slower on applications of ointment or oily solutions, and slowest with alcoholic solutions. An eschar produced by the actual cautery allows resorption to go on as fast as an intact wound surface, so, too, the eschars produced by lunar caustic or nitric acid do not alter the resorption considerably. After cauterization with concentrated carbol-solution, all substances are rapidly resorbed. The only quite impenetrable eschar is that produced by chloride of zinc. This fact may explain the most excellent qualities of the zinc chloride as a wound-dressing. Very interesting in

regard to the merits of the different methods of wound treatment is the following: If a fresh wound remain open, a dry eschar is slowly formed, which—after six hours—is quite impenetrable and so forms a complete protection against external detriments, (open wound treatment); but if a wound at first treated by wet applications is afterwards left open, a much longer time is needed, until an impenetrable eschar is formed. The highest degree of resorption capability is shown in wounds treated by Lister's antiseptic method, and this remains until cicatrization is complete.

Practically, the result might be to make use of wounds for the resorption of remedies which are difficult to administer in any other way; especially valuable will it yet be in the administration of analeptics.—*Wiener Klin., Wochenschrift*, No. 24, June, 1879.

CONTRIBUTIONS TO THE THERAPEUTIC ACTION OF PILOCARP-
IUM MURIATICUM.

CASE I.—*Puerperal Eclampsia*, by Dr. G. Braun.

Patient robust primipara, æt. 21 years, living in the country; previous health always good; during pregnancy slight œdema around the ankles without any bad consequences; delivery easy and without accident; an hour after, a severe eclamptic fit set in, followed during the next four hours, before and at the arrival of the doctor, by a rapid succession of other severe fits; sensorium even during the intervals perfectly benumbed; no micturition since delivery, bladder empty. Ordered: Morphia subcutan. and large doses of chloral. During the next twenty-four hours ten very severe, and a greater number of slighter fits: perfect coma, pupils dilated and without reaction; no micturition, bladder empty, breathing stertorous, strong cyanosis. Pulse small, soft, much accelerated; with rapid succession of severe cramps. In this very hopeless condition, acting on the theory of uræmic intoxication, it was thought that a trial with a hypodermic injection of 0.03 pilocarpine might bring on a favorable change; this was followed by an immense secretion of saliva and perspiration; during the next half hour slight convulsive twitchings of the muscles of the eyes and face showed themselves, then they stopped. An eclamptic fit never occurred again, and the patient steadily improved.

CASE II.—*Neptritis Diffusa*, by Dr. Hoogeweg.

Patient of feeble frame, *æt.* 33 years. This case, (too long to be described fully), a normal picture of Bright's disease, but without any complications of the heart, liver and lungs, as these organs were all perfectly sound, is interesting so far as in it the hypodermic use of pilocarpine failed to manifest its most characteristic action: the production of intense perspiration. (The preparation used was received from one of the most reliable German firms). It is well known that *jaborandi*, in full physiological doses, produces very disagreeable disorders as a paralysing of the vaso-motor system; free salivation, vomiting, diarrhoea, profuse perspiration; and that a certain degree of collapse always succeeds. Much caution is therefore needed in cases with heart complications; so this case was thought an eminently fit one for proving its good action. Therefore, on four consecutive days hypodermic injections of pilocarpine (from 1 to 3 syringefuls of 2 per cent. solution) were made, which only produced salivation, vomiting, and increased diarrhoea. The main action, the profuse perspiration, never occurred, except slightly in the face; the rest of the body remained dry, and as the patient by the increased doses was very much depressed, its further administration was thought contra-indicated. There was no improvement at all, and after three days more the patient died.—*Berlin Klin. Wochenschrift*, No. 24, June, 1879.

Translations from the French, by E. M. N.

PHOSPHATED MILK.—LEBLOND.

For a number of years the phosphates, and in particular the phosphate of lime, have taken an important place in the therapeutics of infants. Physicians who occupy themselves especially with the diseases of infancy, know what wonderful effects are obtained from the administration of the phosphate of lime to infants, the development of whose bones is insufficient.

When the medicine is administered under the form of phosphate of lime, the absorption is almost nothing on account of the insolubility of the calcium salt. If we render this soluble by combining it with an acid, as hydrochloric acid for example, we introduce into the stomach an acid which is not without serious inconvenience to the gastric mucous membrane.

These are the difficulties which have lead Dr. Monribot, of Epinay-sur-Seine, to seek if it be not possible to obtain the solution of this salt in the milk of the cow. The attempts of Dr. Monribot have been crowned with success and have given results which it seems to us interesting to make known.

The milk which we have employed and of which the analysis has been made by M. Godin, pharmacist, came from a cow aged six years, to which had been given, twice each day, 80 grains of powder of calcined bone, intimately mixed with a gruel prepared with bran.

The phosphated alimentation to which this cow has been subjected, has resulted in a very notable increase, in the milk, of phosphates rendered soluble.

From a clinical point of view, the milk charged with phosphate of lime has given us excellent results with two young infants affected with enteritis, in the service which we have directed in the Saint Lazare for several months as substitute for Dr. Courot. In private practice we have administered with entire success, each day, a liter of one quart phosphated milk to a young man of 19 years, affected with commencing pulmonary tuberculosis.

The percussion and auscultation signs, which were determined at the same time by myself and Dr. Lorne, a distinguished practitioner, very soon improved, and even disappeared at the end of a month and a half of treatment. The general state of the patient has become very good; the night sweats which existed at the beginning of the treatment have completely disappeared.

The confidence which Dr. Herard seems to accord to the phosphated milk in commencing pulmonary tuberculosis, and the results which M. Bouchut has obtained at the Hospital for Infants, do not leave us any more doubt as to the rôle which phosphated milk is called to play in therapeutics.

Having become a constituent part of the milk, the lime salt should necessarily produce effects which we cannot obtain with it in pharmaceutical preparations.—*Annal. de Gyn.*, May, '79.

EDITORIAL.

DR. A. J. STEELE, *Editor*.DR. W. A. HARDAWAY, *Associate Editor*PROF. E. W. SCHAUFFLER, M. D., *Corresponding Editor*.

"It is not so much what you ought to do, as what you ought to know not to do."—*Sir Benjamin Brodie, Lectures, 1837.*

ICE A VEHICLE IN CAUSING AND TRANSMITTING DISEASE.

TO preserve health, we must guard well the portals through which the germs of disease find entrance into the system. Ice, so freely and so refreshingly used at this season of the year, may become an avenue for the conduction of a poison which, finding lodgment within the body, causes fevers or intestinal troubles, which may be attended with most serious results.

Sanitarians all agree, that impure or contaminated water is a most potent agent for the spread of disease; and thus why may not ice—frozen water—be, under certain conditions, also most inimical to continued health? It is not available to take the flattering unction to our souls, that a sufficiency of cold to freeze necessarily destroys the poison. Ice may conceal what it does not destroy. Dr. Rochester, at the late meeting of the American Medical Association, called attention to the fact that typhoid fever had been propagated by this means. He said:

"Whence comes our ice supply? Often from shallow reservoirs in the midst or neighborhood of large towns, purposely made to receive surface-drainage from all around, under the erroneous idea that no harm will ensue, as freezing is supposed to purify and render harmless what might otherwise be objectionable. Great quantities of ice are taken from canals, from creeks, from stagnant ponds and

from streams that are either the natural or artificial recipients of surface-drainage, of the outpourings of sewers and of uncleanness from various sources. The danger from ice taken from improper places is not only from that which is drank, but from its use in refrigerators and preservatories, where milk, butter, fruits, vegetables and meats are subjected to its saturating influence as it vaporizes. *Several instances have fallen under the speaker's observation where the disease (typhoid fever), by the most careful investigation, could not be traced to any other source ; and if we accept as a fact the statement positively made by Budd, in the London Lancet, July, 1859, that it never originates, de novo, but proceeds from a special and specific poison, which is capable of diffusion to a great extent, and which preserves its noxious qualities for a long period, even if buried for many months, we cannot reject the hypothesis of ice-infection. A statement is made by Liebermeister, that it is by no means certain that recent immediate alvine dejections are more potential or active in extending the disease, than those which have been exposed for some time upon refuse heaps, or have been long deposited in privies or buried deep beneath the surface."*

For the cooling of beer and other liquids contained in kegs or sealed bottles, the quality of the ice, as regards its purity, is not material, but in refrigerators, where meats, milk, etc., are open and exposed, deleterious matter may be absorbed by or deposited upon them. It were better to bottle or tightly cover milk, which is so absorbent of the gases and odors as to be readily recognized in the taste.

Water from melted ice should be clear, free from impurities, and without rank, mawkish, or other unpleasant taste. If, on becoming warm and standing for a short time, organic matter is found present, it should be rejected—and yet there might be germs of disease in the ice which the glass could not detect. The protection is to know that the ice is collected from a stream or body of water that could by no possibility have been contaminated. St. Louis has city ordinances, well-framed, looking to the protection of

the people in this matter, but like so many of our good laws they are not enforced with that rigor that makes them available.

We would suggest that the suspected ice be tested by adding to the water formed by its melting, tannic acid. If the water thereby is rendered turbid, the ice is decidedly unfit to use for drinking purposes. The acid should be added to the water and the mixture allowed to stand for twenty-four hours, and the degree of turbidity should be observed. By this test, S. Hager, in 1866, when the cholera raged in Berlin, found the water used in the infected districts very impure. The precipitate produced in these cases was a mucoid algæ belonging to the *oscillaria*.

It is an important fact to know that freezing does *not* destroy the typhoid fever germ, and it has been very generally accepted that a low temperature *would* destroy the vitality of the yellow fever poison; but we now have two cases which disprove this latter statement. The first is the case of the U. S. steamer *Plymouth*, on board of which several cases of yellow fever occurred in November, 1878. During the three months following—from December 19th, 1878 to March 15th, 1879—she lay at Boston, fully exposed to intense cold, at times the temperature being below zero. March 15th, she sailed for a cruise to the Windward Islands. On the 23d, two cases of yellow fever were reported on board, one of which died in eight days. The Surgeon reported that the fever infection was confined to the hull of the ship and that she could not be sent into a tropical climate without the certainty of an outbreak of the fever.

The second case is that of Memphis, where, last summer, the yellow fever raged violently; it ceased with the approach of cold weather, and it was supposed that the freezing weather of winter would destroy all infection. This summer, on the return of a high temperature, the fever again is prevalent, not because the germ has been imported, but because it was present, not having been destroyed by freezing, and only requiring filth, moisture and heat to develop it.

WELL WATER AND TYPHOID FEVER.

In this connection we cannot avoid calling attention to the interesting observations of Prof. Winchell, State Geologist of Minnesota, in regard to the cause of the prevalence of typhoid fever in the western part of that State. The disease was traceable to the use of well water. Investigation showed, first, that the water was alkaline, containing many salts, which accounted for the diarrhœa following its use; second, that the wells were curbed with pine wood, which decomposed, taking up oxygen by reaction with the salts, the sulphates being changed into sulphides and hydrosulphurous acid gas given off. There, as elsewhere, surface-drainage often conveyed into the wells organic matter, which rapidly rendered the water unwholesome. The Professor demonstrated that the water itself would not prove injurious, but that it was the action of the pine wood rotting and giving to it organic matter, and thus contaminating and rendering it poisonous. This he proved by experiment, subjecting pine sticks to the action of the well water in wide-mouthed, loosely-covered glass jars. In a short time the sticks sunk to the bottom, gas bubbles formed, a thin scum floated on the surface, swam in the water and settled to the bottom. The odor was first sour, then became very offensive and foul, as from organic decay; fungoid-growths adhered to the glass and floated; organic germs—ciliata—became abundant, and the water finally appeared turbid and had a musty smell and acid reaction.

There is no doubt that the typhoid fever and intestinal troubles of Western Minnesota have been largely due to the use of water contaminated by pine wood; and the same cause has doubtless been operating in other places to produce the same diseases.

A. J. S.

CORRESPONDENCE.

PARIS LETTER.

Abominal Palpation as a Mode of Diagnosing Fætal Positions and Conditions.

Mr. Editor:—Abdominal palpation being considered here by professor and teacher, both in the college and at the bedside of the patient, as one of the means of determining the presentation and position of the fœtus, I may perhaps be permitted to state that I thought the matter of sufficient interest to communicate a few concise notes upon the subject, partly in consequence of the importance attached to this method of diagnosing, and farther because I thought the British text books had not attended to this branch of diagnosis.

Historical.—From the very earliest ages, the idea of applying the hand, upon the abdomen of the woman *enceinte*, so as to gather from the indications knowledge as to the volume, form or attitude of the product of conception, had some hold in the mind of accoucheurs, and was practiced by them. It was not, however, until the time of Marcus Scipio, in 1601, that any indication of external exploration is found. In 1721, Dionis speaks of abdominal palpation for the diagnostication of twins. Roederer makes mention of it in 1765; next Smellie and Baudelocque. Wigand, in 1812, expresses himself on abdominal palpation as follows :

“Rules and general manœuvres :

“*a.* The woman should be exposed in divers positions, standing, lying on her back and side.

“*b.* During internal explorations, the other hand should press strongly on that part of the belly that is most prominent.

“*c.* When there is a strong inclination of the uterus to one side or the other, let her lie on the opposite side during the exploration.

“*d.* When there is no well-pronounced prominence, press strongly on the abdomen above the pubis; at the same time let the woman cough or shout.

"e. Finally, when the position cannot be recognized with the finger, the whole hand should be introduced into the vagina."

Early in 1814 and later, Schmidt indicated more precise rules (*Gesammelte Obstetrische Schriften*, Wien). Anton Friederich Hahl, in 1832, states that one may establish by external exploration, to-wit: "a. If the woman is *enceinte*; b. What month she has reached; c. If she is *enceinte* for the first time; d. Whether she carries one or several fœtuses; e. Whether the pregnancy is accompanied by a morbid condition and what is the nature of it; f. If on one side of the gravid uterus an extra-uterine pregnancy exists, or if that last exists singly; g. Whether the fœtus be living or dead; h. What is the situation of the infant; i. Whether any mechanical obstacle is about to interfere with the labor." * * * "During the labor, besides what has been said, there is also: a. Whether the labor has really commenced; b. Whether the pains are true or false; c. Whether the pains are or are not regular; d. To what point labor has advanced, and e. What are the obstacles that hinder the termination of labor, be it on the part of the fœtus or that of the mother, etc." Velpeau, in his *Traité complet de l'art des accouchements*, published in 1835, calling the palpation "*toucher abdominal*," says, you proceed in two ways. 1st. By holding the one hand on the hypogastrium, while the other hand seeks to determine the condition of the pelvic organs by the perineal strait; 2d. In acting on the abdomen with both hands, and touching the external genital organs.

MM. Caderiblieur and Chailly, in a pamphlet, in 1842, speak of the value of the signs furnished by auscultation, etc. In 1843, Prof. Hubert de Lievais tried to instruct his pupils in the differential diagnosis. In 1855, Mattei, in his essay *sur l'Accouchement Physiologique*, devotes a chapter to abdominal palpation. He speaks in the following terms: "Palpation is the examination of the organs contained in the abdominal cavity by methodic pressure exercised by the hand on the external surface of that cavity. Palpation is remarkable: 1st. For the simplicity and facility of its application, there being thus no need of instruments, and can be practiced without completely uncovering the woman, which is considerable in private practice, where women are adverse to the vaginal touch, especially before labor has commenced; 2d. In medico-legal cases it is useful, in that it can be practiced notwithstanding the will

of the woman; or 3d. In cases of venereal ulcer on the vulva or in the vagina, and where the accoucheur is not disposed to perform the vaginal touch; 4th. In cases where the patient has an excessive sensibility of the genital organs, which prevents the touch being practiced; 5th. Where the neck is dilated and the membranes are not ruptured—that is, when the touch has no diagnostic value or the auscultations do not give exact results; 6th. It can be practiced, finally, in all presentations and positions at the last month of pregnancy, and almost at all periods of labor. This means of diagnosis has for us so much value that very rarely have we any need to touch, and with auscultation to recognize the position and presentation of the fœtus, etc. Palpation is useful in detection of ‘twin’ pregnancy.”

G. Murray, in his “Diagnosis of the position of the fœtus by palpation” (*Lancet*, March, 1858), expresses himself thus: 1st. Pregnancy should be advanced to the eighth or ninth month; 2d. The abdomen must not be too tense or too lax. The accumulation of adipose tissue is also an obstacle to the examination. The patient should lie calm, or without the abdominal muscles being tense, she should lie down, limbs flexed and the thighs slightly separated. Scanzoni admits that the fœtal parts can always be recognized through the abdominal parietes, 1859. Dr. Innert in 1862. E. Marchal, in 1864, in Strasburg, published a treatise on the study of abdominal palpation in its application to the diagnosis of pregnancy. In 1865, Tarnier and others. Schröder, in 1875, declares that “the external exploration permits us to draw extremely important conclusions as to fœtal presentation, etc.” J. Chadwick published in the *American Practitioner* an article upon the subject in 1876. Otto Spiegelberg (*Lehrbuch der Geburtshülfe*, 1877). M. Depaul, who is at present professor of the Faculty of Medicine of Paris (obstetrics), indicates, for precise diagnosis, that it is necessary that the patient present a favorable condition—that is to say, that the abdominal parietes be thin, depressible, etc. Palpation seems to determine with precision: the degree of development of the uterus, its situation, its form, the nature of its contents, the presence, the life, the mode of presentation, and even position of the fœtus. And I also may mention Pinard, who is the last that published a memorandum upon the subject.

Abdominal palpation in a diagnostic point of view.—The first

thing to be done is to empty the bladder and rectum, which is absolutely necessary. All clothing is a hindrance to the exploration; corsets interfere with the respiration and produce inconveniences; in lying down, let the woman be dressed in her chemise only. The horizontal position must be taken; the head must not be elevated, the legs more or less flexed upon the thighs, thighs upon the abdomen. Of course I need not say that the abdomen entirely uncovered is the best to practice palpation upon. Pinard states summarily: "Dorsal decubitus and horizontal position, head slightly flexed, arms extended alongside of the body, inferior members extended and somewhat separated, the abdominal region uncovered from the pubes to the level of the epigastric region." Let the woman place herself more towards the side than the middle of the bed, as it is better, both for the woman and the operator. Before commencing with the manual operation be it understood that what is termed position and presentation should be well kept in mind; the presenting part of the fœtus at the superior strait may take place in five different ways—by the vertex, face, pelvis, right and left shoulder; and each presentation affects divers positions as regards the relation of any part of the fœtus with any one point of the pelvis. Let it be remembered, that out of every twenty confinements there are nineteen presentations by the vertex; pelvis, 1 in 35; trunk or face, 1 in 200. In the presentations of the vertex, 14 in every 20 are occiput to the front and to the left (O. I. L. A.), then there are 5 in 20 occiput to the right and backwards (O. I. R. P.), and 1 in any position between those above given. In the presentation of the face we have the mento (chin) right anterior variety (M. I. L. A.), and the (M. I. R. P.), etc.

Manual Operation.—The accoucheur may place himself on either side of the woman, right or left, yet he ought to take the position towards the head of the patient, about on a level of the umbilicus. The thickness of the abdominal parietes is the first to be perceived, as the sensation under the hand will be found to be more or less distinct in proportion to the thickness of the tissues of the abdominal parietes. The head is the first thing that is sought for at the commencement of the exploration; authors advise to depress the abdominal parietes right and left, so as to analyze the sensations perceived, in order to bring them to bear on the diagnosis. Though the head does not

at all constitute a fixed point, it may be high up or low down, engaged profoundly or situated at the superior strait, etc. Those accustomed to this method of exploration find no difficulty, but it is only acquired by long habit. Attentive observation has demonstrated that at the moment of labor certain regions of the fœtus can only be met with at the superior strait or at its level, and not at such a point of its periphery as has been believed for a long time; it is known to-day that during pregnancy the product of conception obeys the laws of physics, takes determined attitudes, given by such or such a cause. Formerly, in practicing touching, as regards the diagnosis of presentation and position, it was always a question, when the finger was introduced, which of the six presentations and one hundred and two positions am I about to meet with? This was the report of Baudelocque. Now, exploration has become relatively easy, so that the student knows that the finger will meet with three regions of the fœtus with their varieties and their four positions. Knowing that the cephalic extremity ought to be found in the excavation, we are naturally directed to explore that region first.

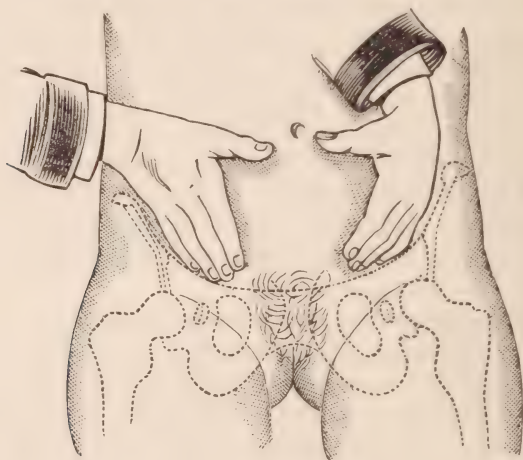


FIG. 1.

Exploring the Excavation.—Find the horizontal branches of the pubes, that is to say, the opening of the superior excavation, or the anterior part of the superior strait (v. Fig. 1). It is indispensable that that part is recognized, because it is only by that

means that we can appreciate the greater or less degree of the engagement of the foetal regions, according as it is found above or below that point.

It is not difficult to find the margin of the anterior superior arch of the pelvis with the extremity of the fingers in almost all women, particularly those who have a thin and extensive abdominal parieties and a uterus in anteversion, or among those who are very accentuated at the superior strait, an anteversion of the pelvis. The belly must first be raised with the palms of the hands, then seek the required margin. Next, interrogate the excavation. For that purpose place the hands on the right and left side, two inches to two and a quarter from the median line, the extremity of the fingers close to the anterior arch of the pelvis, depress the abdominal parieties from above downwards, and from before backwards, flanking, as it were, the horizontal branches, (Fig. 1.)

By proceeding properly, two sensations can be perceived; either the fingers experience resisting sensations, resulting from the contact of a hard body, round and voluminous, which fills the excavation, and does not penetrate profoundly; or on the contrary the fingers meet only a resistance furnished by the soft parts, and may be thrust down to a greater or less depth. In the first case the excavation is filled by, in the second empty of, the foetal parts.

The excavation is full.—The body that is met with offers always the following characteristics: it is abrupt, regular, resisting, and fills in totality or in part the excavation. These certainly can only appertain to the cephalic extremity; palpation being practiced during pregnancy, that is to say, before the commencement of labor, that can only be the cephalic extremity flexed, the vertex, because never before labor is there found in the excavation the cephalic extremity deflexed (face), the pelvis or trunk. Of the five foetal regions that can present before labor, the vertex alone engages.

The first thing of importance is to know whether the foetal region which is plunged into the excavation, is a presentation of the vertex, farther, that extremity engaged in the pelvic canal has still another signification, not less important; it indicates that it is fixed and definitive. There is then a conjunction coinciding to three axes: foetal axis, uterine axis, and pelvic axis, and it is no longer possible for the foetus to

quit the situation that it occupies. Change of position is impossible.

The second point, where the vertex is engaged, the cephalic tumor is always more accessible, more prominent on one side than on the other, thus while the fingers of one hand can descend more or less into the excavation, the fingers of the other hand are arrested much sooner, at a point in the neighborhood of the superior strait, (v. Fig. 2). That portion of the more prominent cephalic sphere most accessible, most elevated, is constituted by the frontal regions.

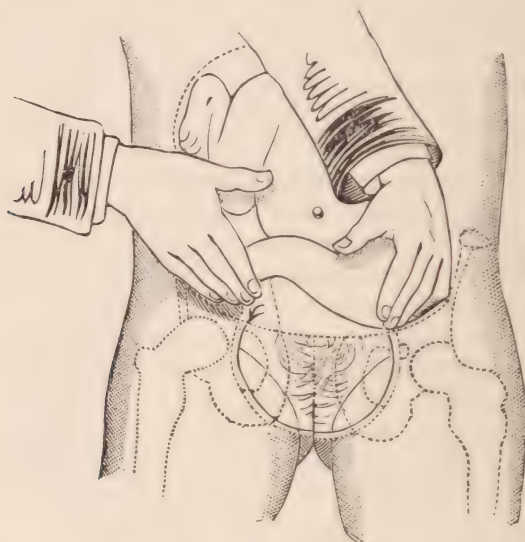


FIG. 2.

Suppose the engagement is less pronounced when the occiput is directed backwards, and that it is thus known that flexion is far from being complete, the difference in the height between the forehead and the occiput is still distinctly perceived.

It ought to be borne in mind that the frontal region is not more elevated, but seems harder to the hand than the occipital. In short, in presentations of the vertex, when the cephalic tumor is more accessible to the left, *right* position; cephalic tumor more accessible to the right, *left* position. The inferior extremity of the foetal ovoid being recognized, the superior extremity must be sought; that is always met with at the fundus uteri, at

the median line or to the right or left. This extremity furnishes to the feeling, a voluminous body, irregular and of a less consistence than the head, besides it is frequently accompanied by smaller parts.

Having established the situation of the head and pelvis, next seek the direction of the dorsum of the fœtus, by depressing the abdominal parieties on the side of which the resisting plane is found, continue in either direction and join the two fœtal poles, inferior and superior. The pressure ought to be practiced with the pulp of the fingers, and with gentleness. It may happen that the back of the fœtus is directly applied to the uterine parieties and the latter to the abdominal parieties, in which case, it is not so easy. The sensations, therefore, are not always the same; or the dorsum of the fœtus may be situated more profoundly, having a certain quantity of amniotic liquid between it and the abdominal parieties. Suppose the back is found on a lateral plane of one side, the abdominal parieties must be depressed in the same manner, so as to perceive the different sensations by the resistance of the fœtal plane or the amniotic liquid. Moreover, these manœuvres ought to be practiced, in order to be sure that there are not more than one.

If the excavation is empty, which is, indeed, very rare, the fœtal head will be found in one or the other iliac-fossa, and each extremity will be recognized after their proper characteristics. But another sign may be called into aid, that of ballotement, which is perceived when the abdominal parieties are impressed and brought in relation to the cephalic extremity, by an impulse, a depression a little briskly done, (v. Fig. 3).

Occipito-iliac, Left Anterior.—The excavation is filled by the cephalic sphere. The fingers of the hand on the right side of the pelvis cannot enter as profoundly as on the left, so as to feel the difference in the height between the occiput and the forehead. The pelvic extremity, occupying the fundus uteri, is frequently found to the right; in some primipara it is found on the median line. In some multipara by reason of the increased transverse diameter of the uterus, the pelvis is carried to the left. The dorsum is attached to the left and in front, the resisting plane, on the right; fluctuating amniotic fluid is found, and the small parts there may be easily felt.

Occipito-iliac, Right Posterior.—The excavation is filled with the sphere, but the fingers cannot penetrate as profoundly on

the left as on the right side. The pelvis is at the fundus uteri, most frequently to the left, sometimes in the median line. The plane of resistance is to the right, and offers less surface than the anterior variety. Fluctuation of amniotic liquid, and the small parts are found to the left, more easily accessible than the anterior variety.

Occipito-iliac, Right Anterior.—The cephalic sphere fills the excavation, the hands penetrate more profoundly on the right than on the left side. Pelvis towards fundus uteri, and most frequently to the left. The resisting plane occupies the right side of the abdominal parieties, the right side is in relation with the linea alba. Amniotic fluid and small parts to the left.

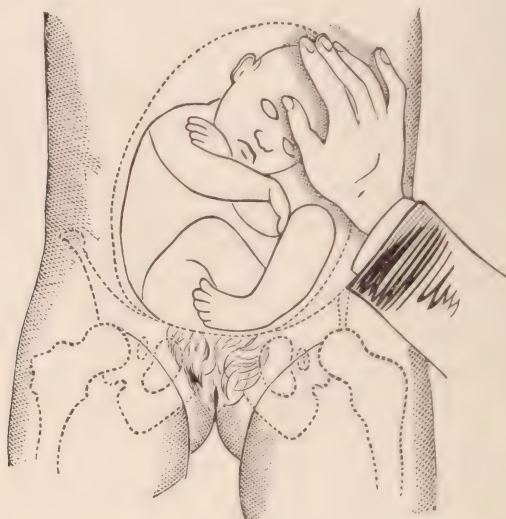


FIG 3.

Occipito-iliac, Left Posterior.—The excavation is filled by the cephalic sphere, the hand penetrates more profoundly on the left than on the right side. Pelvis is at the fundus uteri, mostly to the right. Plane of resistance to the left, offers less surface than the anterior variety. Amniotic liquid and small parts easily accessible to the right.

Face Presentations.—In exploring the excavation, a large tumor is recognized above, on a level with or below the superior strait, the tumor seems to occupy only one side or rather a majority of the small pelvis; very round and very voluminous, very ac-

cessible on one side, seems to be wanting on the other. By gently depressing the abdominal parieties just above this hard regular tumor, the fingers sink into a kind of angle formed by the acciput being flexed on the dorsum, instead of the extension found in occiput presentation, and there are *mento-iliac, left anterior; mento-iliac, right anterior; mento-iliac, right posterior and left posterior*. The above will sufficiently guide the operator.

Pelvis Presentations.—When that presents, the excavation is found empty, and the hand determines that a great extremity is in relation with the large basin; it may, however, be stated that it is seldom found directly above the superior strait, but almost constantly found in relation with one of the iliac fossa partly above the excavation; at times the small parts are felt, at others not so directly. The cephalic extremity is directed toward the fundus uteri, most frequently to the opposite side of the iliac fossa occupied by the pelvic extremity. The ballottement can be perceived by a little brisk depression of the abdominal parieties with that of the foetal part, not always certain. This is best recognized when the head is brought toward the median line; this is done by acting in an inverse direction on the two poles, so as to render it more superficial, more accessible. (v. Fig. 3.)

Sacro Iliac, Left Anterior.—The left iliac fossa is occupied by a voluminous extremity, irregular, accompanied or not, by the small parts, that is, the pelvis. The head is situated at the fundus uteri, but oftener in the right flank, sometimes superficial, very often concealed under the liver. The resisting plane is forwards, and directed from above downwards from left to right. Can be made accessible round and about the umbilicus.

Sacro-iliac, Right Posterior.—The right iliac fossa is occupied by a voluminous extremity, irregular and almost always accompanied by the small parts, which are met with to the left and in front. The head occupies the fundus uteri, inclines mostly to the left. The plane of resistance is found to the right and looks backwards.

Sacro-iliac, Right Anterior.—The right iliac fossa is occupied by a voluminous extremity, irregular, rarely accompanied by the small parts, the head is at the fundus uteri, inclines to the left, plane of resistance to the right and looks forwards, the small parts are met with to the left and directed backwards.

Sacro-iliac, Left Posterior.—The left iliac fossa is occupied by a voluminous extremity, almost always accompanied by the small parts, met with to the right and in front. The head at the fundus uteri, most frequently inclines to the right, difficult to circumscribe. The plane of resistance is found to the left and looks backwards.

(The transverse and shoulder presentation are so seldom met with that I did not think it worth while to describe them,—though at some other time when speaking of reversion by external manœuvre, a short description may be given).

Sensation furnished by palpation when the fœtus is dead and macerated.—When the fœtus is dead in the uterine cavity, it submits to modifications or rather transformations, depending on the length of time. All the tissue softens, its entire form disappears; the fetal ovoid exists no longer, but becomes an inert mass and very shapeless. The sensations furnished in practicing palpation are entirely different from that of a living fœtus. But to have a very marked and appreciable difference the fœtus must have been dead eight days, at least, before examination. In the first days following the death, the sensations are almost the same, above all if the head is plunged into the excavation. The cephalic resistance is clearly perceived, and maintains its characteristic for four or five days. When death has preceded accommodation, the fetal mass occupies the great basin, collects and settles more and more on a level with the inferior segment of the uterus. Under these circumstances no resistance is found in practicing palpation; in the superior regions the resisting amniotic fluid is clearly perceived.

J. HARTMAN, M. D.

Paris, France, June 15, 1879.

COMMUNICATIONS.

AMERICAN PHARMACEUTICAL ASSOCIATION.

Mr. Editor:—This association includes in its membership a majority of the most talented pharmacists of the United States. A vast amount of work is accomplished every year by individuals; and at the annual meeting, held usually in September, papers are read and reports presented. These, with the minutes of the meeting, are afterwards compiled and published.

Volume 26, the proceedings of the meeting held at Atlanta, Ga., in November last, a handsome book of 998 pages, is before us.

Referring to the Constitution, we quote *some* of the objects upon which the "educated and reputable pharmacists and druggists of the United States" are asked to unite.

1. To improve and regulate the drug market, by preventing the importation of inferior, adulterated or deteriorated drugs, and by detecting and exposing home adulteration.

2. To encourage proper relations between druggists, pharmacists, physicians and the people at large, which shall promote the public welfare and tend to mutual strength and advantage.

3. To improve the science and art of pharmacy, by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutical literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business.

Our object, at present, is to call attention more especially to the very voluminous "Report on the Progress of Pharmacy," presented by C. Lewis Diehl, of Louisville, Ky. Twelve months time (ending June 30, 1878), are embraced in the report, and the story is told, without verbosity, in 620 pages. In his introductory remarks, Mr. Diehl says: "The 'Progress of Pharmacy,' as far as the United States are concerned, may perhaps be best considered under two heads:

1. The progress that is secured by research, and by the furtherance of educational facilities; and

2. The progress that is made by the discouragement of empiricism, and the establishment of a proper ethical and professional standard.

Regarding the first, the progress during the past year may be considered perfectly satisfactory.

The papers contributed to the American journals are, in many instances, quite valuable, compare well with those contributed to foreign journals, and are specially noted for their practical character; the colleges of pharmacy appear to be in a flourishing condition, and many have increased their curriculum, while several new local pharmaceutical associations have been organized during the past twelve months and promise future usefulness.

Pharmaceutic progress, as embraced under the second head, however, is not so satisfactory.

The relations of pharmacists to the public, to each other, and to physicians, leave much to be desired, and instead of being progressive, appear rather to tend in the opposite direction. The demand of the public for cheap goods, the variety demanded, competition, the profuse supply of "ready-made" pharmaceuticals, and the disposition of physicians to prescribe medicines of questionable composition or proprietary character, all have a tendency to reduce pharmacists to the condition of mere tradesmen, and to discourage those having higher aims. Just how far pharmacists are responsible for this condition of things, it is difficult to decide. To decide to what extent physicians should be criticised for prescribing medicines of a proprietary or semi-proprietary character, is perhaps equally difficult.

But there certainly seems to be a way to ameliorate this condition, and that is to provide, in our next pharmacopœia, for a class of preparations, which, notwithstanding their current use prior to the last revision of the pharmacopœia, were utterly ignored by the framers of the present standard.

We call attention to the following among the numerous pharmaceutical processes which are collected from various sources by Mr. Diehl:

EXTRACTS.—*Preparation Without Heat*.—Prof. Alphonse Herrera proposes a novel process for preparing extracts without heat, which is based upon the idea that when aqueous solutions of vegetable matter are subjected to partial freezing, the un-

frozen portion of the liquid retains the vegetable matter, and on expression from the ice formed, forms a more concentrated solution of the same. This alternative process of partial freezing and expression is repeated several times, and the concentrated liquid is finally evaporated to the desired consistence in shallow dishes, by exposure to the heat of the sun or of a drying-room, the temperature of which does not exceed 30°C.¹ The solutions operated on in the above process, are either the natural juices of the plant or artificial infusions, and the apparatus employed for freezing is an ordinary ice-cream freezer.

CINCHONA ALKALOIDS.—Mr. Diehl, in referring to these, says: "The efforts made to introduce the cheaper cinchona alkaloids to favor have not met with the success their absolute value as anti-periodics deserves." The duty on quinine was removed by Congress during the session just closed, but notwithstanding this fact, there has been a slight advance in its market value since that time. There seems now to be little doubt but that the principal manufacturers of quinine, in this country, who have controlled its price in the past will be able to do so for some time to come.

OTHER ALKALOIDS.—"Pilocarpia, the alkaloid of jaborandi, has been further studied by Mr. Gerrard; the nitrate, phosphate, hydrobromate, sulphate, hydrochlorate and acetate have been prepared; they are all crystalline."

Sophoria, a new liquid alkaloid, has been obtained from the seeds of *sophora speciosa*, by Dr. H. C. Wood.

Pelletierina, another liquid alkaloid, has been discovered by Tanret, in pomegranate bark, and named by him after Pelletier.

SALICYLIC ACID.—Mr. Williams finds that the natural acid, as obtained from oil of gaultheria (salicylate of methyl), is quite different in character from the artificial (commercial) acid which is made from carbolic acid. A further investigation will probably result in a modification of the process of its manufacture. Mr. E. Jahn, in studying the relations of salicylic acid and borax, has found that certain well-defined compounds are formed when the latter is employed to effect solution.

HYDROBROMIC ACID.—Some confusion respecting the strength of this acid has existed, and a formula is given by Dr. Squibb which yields a product of one-half the bromine

¹ A. J. Ph., September, 1877.

strength of bromide of potassium. He produces hydrobromic acid by the action of sulphuric acid on bromide of potassium. The product is afterwards distilled, and the strength adjusted.

CALOMEL.—“The alterability of calomel has attracted the attention of several investigators. Jolly has found that light, dilute hydrochloric acid, chloride of sodium, citric acid, the hydrates of sodium, magnesium and calcium, and carbonate of sodium, all have a tendency to change calomel into corrosive sublimate and metallic mercury. Experiments in the same direction made by Frederick M. Corwin have given similar results, although they disagree in some respects from those obtained by Mr. Jolly.”

J. M. G.

St. Louis, July 21, 1879.

COMPULSORY VACCINATION.

Mr. Editor:—Permit me as a physician, as well as a citizen, to say a word on the subject of compulsory vaccination, advocated by you in the July number of your Journal. All must admit that vaccination is an important matter, worthy of grave consideration, whether we consider it “*a delusion and a snare*,” as is doubtless honestly contended by some, or as a priceless boon to mankind, as is happily the opinion of a vast majority of our most enlightened people. And for this reason the question of vaccination in the public schools should be dealt with conservatively, else, by resorting to extremes, we run the thing into the ground, and make enemies to a good cause. Whilst I am a firm believer in vaccination, and consider it, *when genuine*, as ample protection as an attack of small-pox is against its recurrence, still I can but think that the principle of compulsory vaccination is fraught with *outrageous wrong* to the citizen made the subject of it. In this free country of ours there are certain “inalienable rights” which no state or municipality can take away. Compulsory vaccination is certainly an infringement upon these rights, and involves a principle which, if carried out, would soon involve medical, religious and social interests in a wild vortex of wreck and ruin. What right has the school-board or any other authority to compel B. and C. to have their children vaccinated, if they object to it, any more than they have to prescribe a given form of religious observance? The

benefits of vaccination are certainly as plain to you and to me, Mr. Editor, as are the fallacies of homœopathy. Yet, what would be thought of a homœopathic school-board if they prescribed that during a scarlet fever epidemic every child should be compelled to carry a bottle of prophylactic sugar and nonsense in his pockets, on pain of dismissal? We do not believe that the doors of the public schools can be shut in the face of any citizen sending his unvaccinated child, *neither is there any sanitary reason for so doing*. For if vaccination be really the ample protection that you and I claim it to be, there can be but little danger to any save those who neglect it, and upon them falls not only the responsibility but the consequences. When the school-board warns parents of the great danger of neglecting this important measure, they have in my judgment done their whole duty. When they go beyond this, they assume most grave and questionable responsibilities,—calculated to react seriously against the cause of vaccination, which so many of us wish to see fostered and promoted.

Vaccination is one of those *great truths*, revealed by science, which "*will prevail*" in spite of all opposition, if kept before the people in a judicious and proper manner; but we are quite sure that no good can be accomplished by tyrannically cramming it down unwilling throats.

Very respectfully,

WALTER COLES, M. D.

St. Louis, July 16, 1879.

THE FRESH AIR MISSION.

Mr. Editor:—Your kind note asking me to give you some information regarding the St. Louis "Fresh Air Mission," together with my views concerning it, received.

In reply, I will state that this benevolent and commendable enterprise was inaugurated by Mr. N. O. Nelson, who called to his aid Mr. Geo. O. Carpenter and Mrs. Wm. E. Ware. They, in turn, called to their aid a few others, who, like themselves, possessed a large amount of energy and were filled with the spirit of philanthropy. By their conjoined efforts, in a very brief period they raised funds, obtained donations, engaged a steamer, and issued and distributed tickets among the poor of our city.

The tickets, which explain the objects of the mission, read as follows :

“Fresh Air Mission. Free excursion for the benefit of the poor. Steamer Charles P. Chouteau leaves foot of Pine street, Saturday, July 19, at 8 A. M., and returns at 6 P. M. Sick and teething children especially wanted. Bring your own food. Tea, coffee and medicine will be furnished free of charge. No contagious diseases will be admitted on board.”

This trial or initial trip was made with 500 souls on board, about three-fourths of whom were children. It was attended with such excellent results, and was furthered by such a spirit of liberality on the part of our citizens, that the enterprise was considered a perfect success.

The second trip was made July 25th, with over 2,000 persons on board, 1,500 of whom were children. It was observed during the voyage that weak and feeble children who had been for some time confined in-doors, seemed to revive on leaving the city limits, after the fresh air had for a time more perfectly oxygenated their impoverished blood, fanned their heated brows, and cooled their wasted and feverish bodies. A faint smile would occasionally play over a pallid face, that a mother had not observed before for days. Others who had for some days and nights been fretful and restless passed off into a quiet slumber that gladdened the heart of many a weary and anxious mother.

The fresh air was a benefit not only to the children but also to the weary and care-worn mothers, whom poverty, domestic duties and care of offspring had confined not only within the city limits but within a few blocks of their own doors for years. The day's rest and recreation produced a moral and mental influence that could not escape the attention of the observer. Faces that had long assumed a fixed form of sadness unfurled a wealth of smiles that one could scarcely believe they possessed.

It is unnecessary to remark that every influence that is brought to bear upon the mother indirectly exerts an influence upon her child, whether it is in the womb or at the breast.

When I reflect upon the large mortality among children in the city of St. Louis; I am persuaded that this “Fresh Air Mission” is among the noblest charities ever inaugurated in our city, and am inclined to think that it will be conducive of much moral, mental and physical good. I can certainly testify to the beneficial results obtained by the fresh air mission in the city of New York, where the children are taken out upon the ocean.

I sincerely hope that the enterprise will not only meet with continued success and encouragement, but that it will form the nucleus of and eventuate in the establishing of a hospital for children in St. Louis.

Yours, very truly,

J. P. KINGSLEY, M. D.

St. Louis, July 25th, 1879.

CORRECTION.

Mr. Editor:—In the report of the “Obstetrical and Gynæcological Society of St. Louis,” in the July number of your Journal, the speaker’s remarks, on pages 84–88, have, by a peculiar combination of adverse circumstances, sustained such a transmutation on their way from the lip to the press, that they have become quite unintelligible. With your permission I shall offer the following as a substitute:

“I wish to say in regard to Dr. Engelmann’s remarks at our last meeting, concerning the protection of the perineum during labor, that the manœuvre advocated by Dr. E.¹ is not a *support* to the perineum, but an indirect protection, by expediting an otherwise more or less protracted labor. It is well known that, especially in primipara, the perineum is often greatly distended and its integrity endangered by the presenting head, particularly when the vaginal orifice is slow in dilating, so that the head appears to be born—*i. e.*: outside of the bony pelvis,—while as yet there is but little projection of it outside of the vulva. The perineum being thus distended, the vertex, by the elastic force of the perineum, is driven under the arch of the pubis, or pressed against the sub-pubic ligament with such force that progress is almost impossible. Now, under such circumstances, when extension of the head is too great, it is well for the accoucheur, instead of allowing the perineum to be further distended and perhaps ruptured, to interfere, by pressing the projecting part of the head downward, toward the coccyx, just sufficient to lessen for a moment the friction, so that the occiput may slip over the sub-pubic arch to the nape of the neck, and the perineum be enabled to press the head upward, and thus produce

1. See COURIER, July, 1879, p. 80.

external extension. This external extension of the head can certainly not take place, so long as the occiput remains within the vagina or under the pubic arch. The small amount of pressure necessary to overcome the friction will hasten the extension and certainly not endanger the perineum; on the contrary indirectly protect the latter. I have independently practiced this manœuvre for some time in appropriate cases, and with apparent good results."

Yours, respectfully,

EUGENE C. GEHRUNG, M. D.

St. Louis, July 15, 1879.

DUTY ON QUININE REMOVED.

Mr. Editor:—The most important topic in the pharmaceutical world, just now, is the consideration of the passage of the McKenzie bill, which occurred July 1st, and read:

Be it enacted, etc., That from and after the passage of this act, the importation of salts of quinine and sulphate of quinine shall be exempt from custom duties, and all laws inconsistent herewith are hereby repealed.

The National, and many of the State Medical Societies,—our own, Missouri, included—urged such action, with the belief that the cost of quinine would be lessened to the consumer; but it may be doubted whether such will be the result, at least for a long time. The home manufacturers are the ones chiefly affected, but they will now give their attention to the preparation of the other alkaloids of Peruvian bark and their salts, which can be furnished at one-third the cost, and are nearly as efficacious, therapeutically.

The high price of quinine has had the good effect of stimulating investigations into the anti-periodic value of many other substances, and has demonstrated that less expensive articles are equally efficient in many cases.

Respectfully,

S.

BOOK REVIEWS AND NOTICES.

A GUIDE TO THE QUANTITATIVE AND QUALITATIVE ANALYSIS OF THE URINE. Designed for Physicians, Chemists and Pharmacists. By Drs. S. C. NEUBAUER and J. VOGEL; with preface by Prof. Dr. R. FRESENIUS. Translated from the seventh German edition, by E. C. CUTTER, M. D. Revised by EDWARD S. WOOD, M. D., Prof. of Chemistry in the Medical School of Harvard University. New York: Wm. Wood & Co., 1879. 8 vo. pp. xiv-551, with wood-cuts and colored lithographs. Strongly bound in leather—red kip.

For the most part, the examination, chemically, of the urine for purposes of diagnosis, prognosis and treatment, is a matter attended with no small amount of delay and trouble, frequently requiring the skilled hand of the chemist. The cruder methods of estimating the solid urinary contents are not sufficiently reliable for clinical purposes. For instance, Houghton's table for estimating the urea-content of a given quantity of urine from its specific gravity, will frequently lead astray to the extent of more than a hundred grains for the urine of twenty-four hours. These facts have, doubtless, had much to do in deterring the radically practical physician of the present day from availing himself of really valuable aid to be derived from the source of urinary pathology. Thus, perhaps, it has come about, that the practice of examining the urine for these purposes has fallen into neglect. The quack and crafty charlatan have, in the meantime, steadily made use of crude and totally unreliable methods of examining urine, to get and retain the confidence, not only of the ignorant, but of the "educated" classes of society.

While the systematic examination of the urine for clinical purposes has been too much neglected by the regular physician, there has been, on the other hand, too much importance attached to the presence, absence, excess or diminution of certain normal or accidental urinary constituents. Thus has neglect on the one hand, and error on the other, served to delay and embarrass progress and to deprive our science of valuable aid.

Chemists have, in recent years, devoted much time and ingenuity to inventing and perfecting methods and apparatus for

the ready and reliable detection and estimation of those constituents of the urine that are of importance to the physician at the bedside. While a great deal yet remains to be done, these efforts have not been entirely unfruitful; and, considering the ease and readiness with which some of these tests can be applied, it is astonishing that they are so frequently neglected, especially in cases of doubtful diagnosis and prognosis. For instance, many physicians will call to mind cases of saccharine diabetes that have gone for years unrecognized, until, perhaps, a diagnosis has been stumbled on by mere accident (in some cases by the patient himself); and yet Fehling's or Pavy's test-solutions for sugar can be purchased at chemists' shops at the nominal cost of ten cents per ounce, and with a few simple precautions are reliable as guides.

Moreover, an examination of the urine is of advantage, not alone in diseases of the uropoëtic organs, but frequently in the most diverse morbid conditions, general and local. Indeed, it may be fairly questioned whether the systematic examination of urine for purposes of diagnosis, prognosis *and* treatment finds its highest field of usefulness in diseases of the uropoëtic viscera. As is well known, some diseases of the genito-urinary apparatus, if capable of being diagnosticated at all by the analysis of the urine, are so with very great difficulty, whereas the indications to be derived from this source, in other morbid conditions, are of the greatest value. Nor is uropathology of interest or value alone to the physician. In a proper chemical and microscopic examination of the urine the surgeon will frequently find a valuable guide, indicating whether the wound he is about to make in operation will heal or not; or whether it will heal rapidly or slowly and with difficulty.

Perhaps, after all that is said, nothing has done more to delay and hinder progress in this matter of uropathology than the attempt made by some to force it into too arbitrary channels, and to put a strained interpretation on some facts derivable from urinary analysis. Over-confidence has thus brought about a natural reaction; and those who cast aside all but urinary pathology as the guide to, and interpreter of, morbid conditions, whether local or general, are doomed to the disappointment that, in a lesser degree, overtakes others who have hoped to find for every disorder its corresponding pathognomonic sign in the urine.

Within the last few years, interest in this field of uropathology has been revived to a very great extent, and a demand for works on this subject has been met by the publication of some very excellent manuals, notably that of Dr. James Tyson, of Philadelphia. The work before us is, however, the one that, since it covers the entire field, will more thoroughly answer the demands of the profession than any other with which we are acquainted. Part First, by Prof. Neubauer,¹ is devoted to the chemistry of the urine, and is a complete exposition of the various methods of detecting and estimating, quantitatively, the various normal and pathological or accidental urinary constituents. It would be presumption on the part of any but an accomplished chemist to say more of this part of the work than to commend the care taken to indicate the sources and limits of error in the various analytical processes; and to commend the clearness of the language. The physician will appreciate the endeavors made to discover reliable means of analysis that are, at the same time, simple and easy. The chemical apparatus is illustrated in a manner to render the text more easily understood by the reader. Especially to be commended are the truly excellent colored plates illustrating the appearance of the various urinary sediments. They have the advantage of looking like what one really sees under the microscope, and are as little schematic as it is possible to make them. The groupings are admirable, as an inspection of figures 2 and 5 of plate II. will show. Plate IV. shows Vogel's color scale, and the spectrums of hæmatin, and hæmoglobin, all excellently colored.

Part Second is devoted to the Semiology of Human Urine, and is the work of Dr. Julius Vogel, well known to the scientific world for his labors in this field. His expositions of the aid urinary examination affords to diagnosis, prognosis and treatment of disease, is as complete and thorough as the present state of our science will admit of; and not the least admirable feature of his work is the pains taken to point out the falsity of certain wide-spread notions in regard to the semiological value that is attached to special facts in urinary pathology. As an illustration of our meaning, we quote from page 359:

1 While writing this notice, we learn of the death of Dr. Neubauer, an event that will cause regret in the mind of every devotee to the science to which he gave his life.

“One erroneous opinion, however, which is based on an imperfect knowledge of the nutritive changes in disease, and upon an ontological way of regarding single forms of disease not yet discarded by all pathologists, deserves mention and a refutation, because it and the conclusions drawn from it have a very great range and are widely spread, and have even appeared anew in recent works on these subjects. It is the opinion that the different forms of disease are characterized by a definite condition of the urine that corresponds to each. This statement is only true for a very few diseases, in which a certain condition has received its name from a characteristic condition of the urine. It is natural that the urine in albuminuria should contain albumen; in hæmaturia, blood; in glycosuria, sugar; in oxaluria, oxalic acid, etc. If this were not the case, we should not be justified in giving this name to the disease. In other forms of disease, we only very rarely find any specially characteristic condition of the urine; and, when recently it has been several times asserted that the urine, for example, in typhoid fever, pneumonia, etc., has possessed a certain composition or qualities, such observations, as a rule, rest on insufficient data, or the investigations have been made in certain stages of these diseases only.

“Examinations of the urine in the above diseases, in which they have been made in great number and in all stages of the disease, show, as will be proved later, that the condition of the urine in all acute diseases changes with the progress of the disease, with a certain degree of regularity. And that this change in the condition of the urine ordinarily depends less on the special nature of the sickness, especially its local phenomena, than upon certain general conditions of the body, such as the intensity of the fever, the state of the appetite and digestion—that is, upon the greater or less amount of food taken. This is also true of chronic diseases in which acute exacerbations occur, as is often the case. For example, the wide-spread idea that the amount of urea in the urine of Bright’s disease is diminished is untrue to this extent: that in febrile forms of this disease, just as is the rule in all fevers, an increase of the urea is observed.”

Drs. Cutter and Wood have certainly performed a most thank-worthy task in presenting this volume to the profession in its present complete and elegant shape. The latter says in his

preface: "There is no book in the English language which treats the subject of Urinary Chemistry in so thorough and scientific a manner, and in none is the material so arranged as to be readily available to both student and practitioner. The separation of the book into two distinct parts,—the first, by Neubauer, being strictly chemical, and the second, by Vogel being chiefly medical,—adds much to its value as a book of reference for both the chemist and physician."

The system of references, from one to the other part of the book, is by articles, and is as complete as it can be made. The index and table of contents are really what they should be, and not what we have so frequently seen in works of this character, of late; and those who use the book for frequent reference will appreciate the care taken in this regard.

The style in which the publishers have presented this book deserves more than a passing notice. It is strongly bound in leather of a dark maroon color, and has a "spring" back, so as to lay open at any page without the use of a paper-weight. We understand the binding is an experiment, and we hope it will be a successful one, for the volume presents an elegant and finished appearance, and its true worth entitles it to a position in the library of every scientific physician in the country. J. B.

ELEMENTS OF MODERN CHEMISTRY. By ADOLPHE WURTZ. Translated by W. H. GREENE. M. D. Philadelphia: J. B. Lippincott & Co., 1789. pp. 687; 12 Mo; 132 Illustrations. (Through St. Louis Book and News Co.)

Though there is certainly no scarcity of text-books for students of chemistry, and among their number many meritorious works, the present volume is not in the least "*de trop*," and the thanks of the public are due to the able translator for introducing among us this valuable book.

M. Adolphe Wurtz has been long known as an untiring investigator and leader in the chemical circles in Paris, and, though accused in former times of claiming in his writings too much merit for *French* chemists, and ignoring all that is foreign, there is certainly not a single passage in the present work to which objection could be made on that score. In the introductory chapters the fundamental truths are explained, not by labored and precise definitions, to be committed to memory by students as yet unacquainted with any objects to which to apply them,

but by giving to the beginner a store of readily-observed facts, and deducing from them in an easy and lucid manner the ideas of the various terms employed.

Without the constraint of design being everywhere apparent, the historical development, from the first glimmerings of systematic relations of unconnected facts to the marvellous attainments of our present theories, is told in language so plain, illustrated by observations and experiments so apposite, that this difficult part of the subject is placed within reach of every one. At the same time, the translator has done his work so well that the text reads like an original composition in the English language, and it requires familiarity with the French idiom to detect the few Gallicisms retained.

As the preface states, the chemistry of the metalloids is relatively more developed than the remainder of the book. This is an advantage not to be lightly esteemed, as in that part of the study the most important facts are more readily demonstrated and presented in a most interesting manner. The chemistry of the metals, however, is treated with sufficient explicitness to give all the information necessary to the beginner. Those very rare metallic elements, which modern research has recently discovered, but whose importance is as yet very small, are treated but briefly or entirely omitted, so as to give room for sufficient detail in the treatment of the more important ones.

Organic chemistry receives the consideration due its present importance, and is well taught. The typographical execution is fair, and the proof-reader has done his part very well, rendering the work so much more valuable. The work deserves to be introduced as a text-book wherever chemistry is taught.

CURTMAN.

HANDBOOK OF DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NASAL CAVITIES. BY CARL SEILER, M. D. *Philadelphia: Henry C. Lea, 1879. 12 Mo., pp. 156. Price, \$1 00.*

The author of this volume has already given to the public two excellent works, "The Voice in Singing" and "The Voice in Speaking," and we are led to expect something good from his pen.

This little volume does not claim to be a text-book on throat diseases, but, as the author states in his preface, "it is intended to serve as a guide to students of laryngoscopy in acquiring the

skill requisite to the successful diagnosis and treatment of diseases of the larynx and pharynx."

The first portion of the book is devoted to the instruments and apparatus necessary to a laryngoscopic examination, and to the manner in which these examinations should be made. The latter portion gives a full synopsis of the various affections of the nasal cavities, the pharynx and the larynx, with the appropriate treatment. A table of symptoms is added, which the author claims to have formed from the study of a large number of cases. A short bibliography, comprising the standard works on throat diseases, closes the volume.

There are many things in this little book of Dr. Seiler's which commend it most favorably; although it contains nothing new, still the material is presented in such a way as to make a most excellent book for those desiring a certain amount of knowledge of the laryngoscope and its application in diseases of the throat.

In speaking of the light necessary to a laryngoscopic examination, we are glad to see his recommendation of the simple means at the command of the student and practitioner. Too much stress is generally laid in text-books on the complicated and expensive apparatus for producing light, so that many practitioners of limited means are deterred from entering into the study of the subject on account of the expense of the apparatus, *said* to be necessary to such examinations. The truth is, all apparatus for increasing the illuminating power is in the vast majority of cases useless and unnecessary. A common coal-oil lamp, with a large burner, or gas, with an argand burner, furnishes all the light necessary for making a laryngoscopic examination. The sun also, although most unreliable, gives us a better picture than the most complicated light apparatus. The chapter on the art of laryngoscopy is well written and gives many useful hints on the practical use of the laryngoscope.

In discussing granular pharyngitis, we think the author is not justified in always associating it with chronic laryngitis and in giving the symptoms more strictly belonging to the latter disease. His remarks, however, in this chapter, on the faulty use of the voice as productive of disease, are most excellent. A stricter attention to the natural registers of the voice, especially in singing, would save many a good voice from being ruined.

In speaking of "*Laryngitis Phthisica*," we think the author speaks a little too positively of the existence of tubercles as a

cause of the laryngeal complication in Phthisis, and especially, as the fact of their ever being present in the larynx, has been denied by such authorities as Rindfleisch, Louis, Rheiner, Rühle and Wunderlich.

The chapters on the nervous lesions of the larynx are good, and contain all that is necessary to a thorough understanding of the subject.

Some exception can be taken to the therapeutics of the work. The author has followed the example of European specialists, who are apt to be prejudiced and are prone to extol the virtues of a single remedy to the exclusion of others. Thus we see the almost universal use of the nitrate of silver in the German clinics, the iodine in the French, and the chloride of zinc in the English.

There is more liberalism in the American practice, which uses all these excellent remedies, but sees in different conditions the special use of each. The nitrate of silver is undoubtedly an excellent application under some circumstances, but we think the author uses it where other applications would be more suitable. For example, in the treatment of hypertrophied tonsils—the ultimate effect of the application of silver is to cause a hardening of the tissue, rendering it less prone to absorption. Although there are many points in the book open to criticism, still as a whole, it is the best of the smaller books on the throat, and we can heartily recommend it to student or practitioner as a good and cheap book on the diseases of the throat. The binding and press-work are done in the usual good style of H. C. Lea.

W. C. G.

A TABULAR HANDBOOK OF AUSCULTATION AND PERCUSSION. By HERBERT C. CLAPP, A. M., M. D. *Houghton, Osgood & Co.* The Riverside Press, Cambridge, 1879.

This book commences with an introduction in which the *rationale* of physical signs is given, with some general remarks as to the scope and aim of the work. The practice of auscultation and percussion is discussed, and the method in which they should be applied is fully explained. Immediately following are four excellent plates, showing in marked lines the boundaries of the different organs, taken, as the author states, from Weil's Handbook and Atlas of Typographical Percussion.

Part I. of the work is devoted to the Physical Signs; Part II.

to Physical Diagnosis of the diseases of the lungs and heart. The two parts are tabulated, a separate table being given to each subject.

Under the heading, "Physical Signs," there are nine tables. The first is devoted to a description of the normal respiratory sounds. The variations existing in health are clearly stated. The respiratory sounds indicative of disease are next taken up and classified under the following heads: "Character of sound"—"How produced"—"Usual seat"—"Diseases indicated." In these tables he gives a thorough and accurate history of the morbid respiratory sounds, with their signification, as signs of disease.

The normal and abnormal voice sounds are described, and Part I. closes with a clear and concise description of the various percussion sounds.

In Part II., devoted to the physical diagnosis of diseases of the lungs and heart, we find a full synopsis of the physical signs most constantly occurring in each disease. The author has been most happy in his manner of mapping out and grouping the various combinations of signs distinctive of the various diseases. Exceptional signs are given, but they are given in such a way as to show that they are exceptional, and not the more constant indications of disease. In a book intended for students, we think this arrangement will prove of great value, as the student is apt to be misled and confused, if the more constant signs are grouped with the exceptional ones.

In speaking of signs, which many text books give as always present in certain conditions, but which experience tells us are sometimes found wanting, the author distinctly states the fact, and thus the physical signs of the disease are more clearly drawn. Thus, in speaking of the first stage of pneumonia, he says "generally but not invariably the crepitant râle is present; when it does occur, it is pathognomonic."

The table devoted to diseases of the heart is most excellent, and we have never seen so complete and accurate a synopsis of the physical signs of cardiac disease in any other manual on the subject.

After a careful perusal of the work, we can find nothing to criticise. It is good from beginning to end, and we can heartily recommend it to students or practitioners as one of the best, if not the best manual on the subject of Physical Signs and Physical Diagnosis.

It cannot, as a manual, take the place of our standard textbooks, but as the author states in his preface, it can be studied in connection with standard works, as those of Flint, DaCosta and Balfour. It serves as a book of ready reference, and it would have been still more complete had foot-notes been added with references to the works of these authors.

The book is handsomely bound and printed, and reflects the greatest credit on its publishers, Houghton, Osgood & Co.

W. C. G.

POSOLOGICAL TABLE. Including all the Official and the most frequently employed Unofficial Preparations By CHARLES RICE, Chemist, Department of Public Charities and Correction, N. Y. *Wm. Wood & Co., New York.* 16 Mo. Price, \$1 00.

This little volume, of about a hundred closely-written pages, evidences a considerable amount of patient and careful research.

The object of the work, as the author states, is to furnish a convenient guide in regard to *average adult* doses, not only of all the ordinary remedies in use, but of all in the U. S. Pharmacopœia, as well as important agents from other pharmacopœias and works mentioning unofficial preparations.

As a ready-reference book, it cannot but be of great value to the pharmacist and physician. The author has been especially careful to mention the maximum as well as minimum doses of all active remedial agents, and at the same time to indicate by signs, which may be seen at a glance, whether they are poisonous or not, to ~~what~~ degree they are poisonous, and whether the dose may be safely increased.

In consequence of the multiplicity of remedial agents now in use, and the constant addition of new ones to the list, it is impossible for the pharmacist or physician to retain in his memory the strength, dose and solubility of the various agents employed or those he would wish to employ. With a small, concise, alphabetically-arranged volume, like the one in review, before him, however, he could refer in a moment to almost any drug or preparation, and obtain that information in two brief lines.

J. P. K.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 26, 1879. Dr. C. E. Briggs, in the Chair.

Dr. Carson presented specimens of fractured bone, beautifully illustrating the reparative changes that take place after such lesion.

CANCER OF PYLORIC EXTREMITY OF STOMACH.

Dr. Carson also presented a specimen of cancer of the pyloric extremity of the stomach, and said: The young man from whom this specimen was taken, was about twenty-five years of age. On examination, I found a tumor in the right side extending from within an inch and a half of the anterior superior spine of the ilium towards the median line to within an inch and a half of the umbilicus, and backward past the median line of the axilla about an inch and a half. It was taken, on the first examination, to be the right lobe of the liver, enlarged. On further examination, I changed my diagnosis to that of cancer of the pyloric extremity of the stomach. The patient stated that, as long as he recollected, he had had more or less pain in the right side, with vomiting; that since January this had increased and a tumor had appeared. He was much emaciated and much distressed. There was constant vomiting of a watery, black substance, the bowels were constipated, and I believe from the time he entered the hospital up to the time of his death yesterday morning, nothing passed from his bowels at all. Upon microscopic examination of the fluid ejected from the stomach, I found numerous epithelial cells, a little blood, and food partially digested. The patient actually starved to death, and refused to have anything done for him to prolong his life. The post-mortem was made yesterday. The walls of the abdomen were very thin. The apex of the right lung was found adherent above, and the left lung adherent to the pericardium. The convex surface of the liver was strongly adherent to the diaphragm, and there was between the under border of the liver and the intestines effused lymph, the result of inflammation. All the surface of the stomach was strongly and firmly agglutinated to the surrounding parts. It was filled with black, grumous mate-

rial, and the large intestine also with the same. The stomach, as observed here in the specimen, is thickened and hardened and ulcerated toward the pyloric, which is greatly narrowed. The upper portion of duodenum and border of liver were involved in the same diseased condition. I find I can pass my finger from the pyloric extremity into the large intestine. I suspected this opening must exist, as the large intestine was partially filled with this same material, while, at the same time, the small intestine was perfectly free from it. Now I can account for the fact that the patient had no alvine discharges after he entered the hospital. The lower lobe of the liver, or at least a portion of the right lobe, was adherent firmly to the stomach, and seemed to be involved in the same disease. The kidneys, spleen and pancreas were healthy.

CANCER OF THE LIVER.

Dr. Carson presented a specimen of cancer of the liver, and said: The man from whom this specimen was taken presented himself at the clinic April 15, and a week following entered the hospital. His general appearance was that of a person prematurely old; hair partially grey. He gave a rather unsatisfactory account of some old eye trouble. Has been a hard drinker. A rather hasty examination showed a large tumor of the abdomen, occupying most of the abdominal cavity above the umbilicus, and encroaching extensively upon the thoracic cavity. Has been a robust, healthy man up to 18 months ago, when he began to complain of uncomfortable sensation just below tip of ensiform cartilage, and soon began to vomit occasionally the natural contents of stomach. This continued up to about six weeks ago, when he first noticed marked enlargement of the abdomen. This tumor rapidly increased until it occupied the greater part of the abdomen and thorax. The patient has lost fifty pounds in weight during last year. While the patient did not present any cancerous cachexia, the arcus senilis was very well marked, although he was only thirty-two years of age. A diagnosis of cancer of the omentum was made by most of us at the hospital. Drs. Robinson and Michel, however, diagnosed cancer of the liver at the time the patient was presented to the society, some two weeks since, and the post-mortem proved the correctness of their opinion. Here we see the liver enormously enlarged, and weighing, at the time of its

removal, between fifteen and eighteen pounds, with a large medullary mass in the right lobe, and several nodules of various sizes in the left lobe. There was no icterus, very little effusion into the cavity, and that only occurring a day or two before the patient's death. He had then suffered a great deal, and acute inflammation preceded his death by two or three days.

Dr. Ford called attention to the cause of the great increase in size of cancerous livers, and to the fact that the true hepatic substance is really much diminished in amount, since by the pressure of these growths, both the circulation of blood through the organ and the regular discharge of the biliary secretion are interfered with. The retained secretions distend the organ; and the pressure so caused, as well as that produced by the cancerous growths, produces atrophy of the true hepatic tissue. The last specimen presented felt like a sack containing fluid, and very little true hepatic substance remained.

Dr. Ford said, further: There is a point which I think of interest with regard to the first specimen—namely, the differential diagnosis between cancer of the stomach and chronic gastric ulcer. The diagnosis is said to be very difficult, and in a great majority of cases it probably is so; but I think one leading consideration not hitherto dwelt upon, as far as I know, will give a good deal of light on this subject. Let us take lesions of the mucous membrane of the stomach as the leading point. Such lesions necessarily give rise to pain after eating, and to hæmorrhages. I do not know that there is any other very distinctive symptom. If these occur early in the history of the affection, it is probable that the case is one of gastric ulcer; if there has been a long period of time in which various gastric symptoms have been observed, difficult digestion, dyspeptic troubles, as they are called, without pain after eating, but nausea and occasional vomiting, but not of blood, and after several months of that condition, one or two hæmorrhages occur, light or very copious indeed, blood accompanied by grumous vomiting—if these symptoms occur late, we are forced to conclude it is a case of cancerous trouble of the stomach. The symptoms otherwise are almost the same. There is pain in the back, presence or absence of a tumor (in a great majority of cases a tumor is difficult to make out in a cancer of the stomach), in both cancer of the stomach and gastric ulcer; hæmorrhage, too, is common to both, *but at different stages of*

the affection. The key of the diagnosis is simply this, that cancer invades from without and infects the mucous membrane the last. Hence, the various gastric troubles must present themselves before the hæmorrhages and the pain after eating occur. But in the gastric ulcer, the mucous membrane is first affected; and these symptoms occur early.

Dr. G. A. Moses: The history of the case presented upholds very well the discrimination made by Dr. Ford. There was no history of early hæmorrhages; he vomited blood a few days only before his death.

Dr. Carson: The tumor in the side felt very much like the right lobe of the liver greatly enlarged, but upon percussion we could perceive there was a line of resonance between the lower margins of the ribs and the tumor, which extended almost entirely across. This could be distinctly made out, and the only place in which there was dullness, was a little to the left of the cartilages. Another peculiarity of this case was, that just before the patient would vomit, a hard knot would form about the umbilicus; you could see it very distinctly; the patient would then relieve himself, and this contraction of the intestines, or whatever it might be, would disappear. There was no blood, as Dr. Moses said, at any time, excepting a few days before the death of the patient, when a small quantity was vomited. One marked fact in this case towards the last, was that while the liver was almost entirely free from disease, there was, a decided discoloration of the skin and sclerotica. There were no febrile symptoms in either case. Dr. Steele asks if there was any appearance of cancerous cachexia. I will say it was entirely absent, in both cases.

SYPHILITIC LESIONS OF THE ARTERIES.

Dr. Carson related the following case: The patient, a man of thirty-five years of age, entered the hospital a year or more ago, giving a very indefinite history, but complaining of constant supra-orbital pains. He stated that he had had syphilis, but when, and the number of the sores, we could not learn, or that he had had any subsequent lesions that were of any consequence. Upon examination I found an indurated cicatrix on the left side of the penis, just at the corona. A diagnosis of syphilis of the brain was made, and iodide of potassium in ten grain doses was administered at first, with a gradual increase until the patient

was unable to bear any more, but still the disease continued to progress. All the patient seemed to desire was to be let alone, mingling very little with the other patients. There were no signs of paralysis; all the functions were normally performed, except that the bowels were more or less constipated, and to produce an action from them cathartics always had to be administered. His appetite, first was fair, but afterwards diminished, until, a short time before his death, he ate no more than would be sufficient to nourish a small infant. The post-mortem revealed the following: That death was the result of *white softening* of left posterior lobe of cerebrum, caused by thrombus of corresponding posterior cerebral artery; occlusion of left posterior communicating branch of circle of Willis. There was a fibrinous deposit in nearly all the vessels of the circle; the brain was otherwise in healthy condition. The heart and valves normal, with the exception of a large, well-organized clot firmly adherent to right auriculo-ventricular valve. Arch of aorta was of a light saffron color, somewhat dilated, and had fibrous deposit beneath internal coat. Lungs were adherent to pleuræ. Liver cirrhotic, (one half normal size). Spleen atrophied nearly one half, and covering nearly whole of external convex surface there was a firm, shining cartilaginous deposit four or five lines in thickness. Omentum adherent to stomach and spleen. Stomach very much contracted; no lesions visible.

I will say, that in looking up this subject, I have been able to find very little. Some of the recent authorities merely mention the fact that disease of the vessels is "possible," and in most cases where they have referred to it all, it is said that a fibrinous deposit may appear in the walls. As to the condition of the spleen, the only reference I have been able to find was in Rokitsansky, who attributed it to old age, but mentioned nothing of syphilis being the cause.

Dr. Ford: Cartilaginous degeneration of the spleen would cause it.

Dr. Gebser: Two years ago a most interesting case of syphilitic arteritis and consequent softening of the brain presented itself at the Missouri Eye and Ear Infirmary. The young man first called on account of an ear affection, which seemed, however, quite independent of the specific trouble; at least, a few weeks' local treatment entirely relieved him: but six weeks after he was dismissed he returned with paresis of *motor oculi*

communis. The history of the case was traced back to the contraction, eight or nine years previously, of a hard chancre, followed by secondary symptoms, which were, however, readily relieved and apparently cured by the specific treatment adopted at that time; but recently he had a stroke of hemiplegia of the right side, four months later, paresis of the left oculomotorius. He was placed upon electricity and anti-syphilitic treatment. At first he did not improve, but after five or six weeks was very decidedly benefitted. Finally, however, he became quite insane, so that his mother and sister could at times scarcely manage him. The oculomotor paresis did not entirely disappear; it gradually became better then worse again. He afterwards had epileptic convulsions and finally died in the autumn of 1877. We expected a gumma at the base of the brain, but the post-mortem, which was made by Dr. Frazier, assisted by Dr. Mudd, showed much softening throughout the brain, thickening of the basilar artery, and portions of the arachnoid, and of the third pair of nerves.

[Dr. W. A. Frazier has kindly furnished the following history of the case, which, on account of the manifest interest taken in the subject, we have deemed best to introduce.—Ed.]

On the 19th of July, 1876, B. B. B., *æt*, 34, native of St. Louis, though of German parentage; pock-marked, well-proportioned, though somewhat slender, unmarried—for some time previously mail-agent in a postal-car, and afterwards traveling agent, came to the Missouri Eye and Ear Infirmary for treatment of an ear-trouble, which, on examination, proved to be *perforatio membranae tympani dextri* and *Otitis Med. Cat. Chr. Sin.* After a few weeks of treatment—usual in such cases—with satisfactory results, the patient was dismissed, but returned on the 16th of October following, with paresis of the left oculomotorius nerve, and the consequent symptoms of external strabismus, mydriasis, ptosis, and, of course, diplopia, which was a source of a great deal of annoyance to him in walking, and going up stairs especially. He also complained of a dull, boring or gnawing pain in the top and back part of his head, (near nucha), feeling at times, he said, as if his head was being gradually squeezed in a vise—and sometimes as if he were carrying an anvil on top of his head. Had first felt slight pain in the head several months ago, but of late it had increased so much as to deprive him of sleep; that he also frequently of late had intense, acute pain in the left

eye-ball and left side of head ; that recently his face was always greatly flushed, more particularly in the morning ; that the right hand, and indeed, the skin of the right side of the body, felt colder than the left, which was quite perceptible objectively. He also called my attention to two or three nodes, about the size apparently of a small hazelnut, situated near the junction of the sagittal and coronal sutures. These, too, annoyed him, though only painful on pressure. There were likewise some mental manifestations, doubtless due to brain disturbance ; for even during his ear treatment, though he was perfectly rational, he seemed and acted at times silly, but now he was more imbecile.

For the purpose of ascertaining whether there might be some intra-cranial growths from the dura mater, pressing upon the cerebrum, and corresponding in location with the extra-cranial ones, I made a very thorough ophthalmoscopic examination, but finding no choked disc, and the fundus in all other respects normal, was thoroughly convinced that at least no cerebral tumors existed. Suspecting, however, some other more deep-seated intra-cranial trouble of specific origin, I subjected the patient to a searching investigation, and extracted the following history : That although he had inherited a sound constitution from healthy, and now aged, parents, it had received frequent rude shocks from several severe forms of illness, not the least of which was an attack of small-pox. On being plied with more direct questions, he confessed that eight or nine years ago he had contracted a hard chancre ; that about six weeks later he had sore throat and a "rash"—but that they readily, though gradually, yielded to the influence of the anti-syphilitic remedies with which he was at the time treated. For several years subsequently he had enjoyed an immunity from his old trouble, until, sometime during the early spring or winter of the present year, (1876), some nodes had appeared over the bones of the legs, (tibiæ), and he felt at times vague rheumatic pains and aching bones, but that these symptoms all slowly disappeared under treatment. On the 8th of June, 1876, whilst now enjoying apparently excellent health again, and still rejoicing in his strength, and recent happy rescue from his old enemy, he was suddenly overcome by the intensity of the heat, and at 12 and 1 o'clock, respectively, had two paralytic strokes on the right side, but affecting the arm more than the leg. His sister afterwards told

me that he also, at the same time, lost temporarily the power of speech and "became forgetful,"—this loss of memory remaining more or less well-marked until the time of his death, 17th Oct., 1877, just one year and one day from the time he came to us on account of his eye; there was, however, at the time he came to us, no aphasia, nor paresis of the hypoglossal nerve, nor, indeed, of the glossopharyngeal or lingual branch of the fifth pair. The patient stated that there was now frequent micturition, and that ever since the paralytic strokes his appetite was morbidly great—always feeling hungry even after an enormous meal—but that there was little or no thirst. Physical examination showed respiration regular and easy; lung and heart-sounds normal; pulse regular, though at times small and weak; bowels regular.

All the symptoms of the case pointed clearly and positively, as I thought, to syphiloma, situate somewhere in the region of the fourth ventricle, most likely in the floor thereof. With the view, therefore, of dissipating this supposed growth, the patient was ordered at first five grains of potassium iodide, combined with three grains of ammonium carbonate, the former being gradually increased to thirty grains. The use of electricity for the paralyzed ocular muscles was immediately adopted and persisted in with great regularity, patience and perseverance, but, as was expected, proved in the end of little or no avail. For the insomnia and pain in the head, the internal exhibition of first morphia, and then chloral and potassium bromide, was resorted to, but neither proved efficacious.

During these first ten days or two weeks the patient felt no improvement, and the prospect seemed truly unpromising; indeed, he was decidedly worse from loss of sleep, and now increasing and excruciating pain in the eye-ball, for relief of which I placed beneath the eye-lid a Savory & Moore's Calabar bean disc, and immediately left the house. The effect was almost magical, for when I returned the next day the patient reported that I had hardly gotten out of the yard before the pain had entirely disappeared; but, although this was the means of affording him much-needed sleep and refreshing rest, unfortunately the relief was only temporary, and of comparatively short duration, for the pain returned in the morning as severe as ever. This was repeated several times with invariably the same result. Its use was then abandoned and that of phosphorus substituted. Under gradually increasing doses of this most excellent and

efficient remedial agent, and also of the iodide which I mentioned above, the sufferer felt no change until after about a week's use, when the frontal and orbital neuralgia entirely disappeared, but the dull, gnawing occipital pain, or "weight," as he sometimes termed it, continued on for about two weeks longer, when it, too, permanently subsided. From this time on for several months, (at the end of which time the medicines, having been gradually decreased, were discontinued), the case, which in the beginning had proved so refractory, slowly and gradually improved; his former cheerfulness and buoyancy of feeling now returned, and, with the exception of the persistent paresis of the oculomotor, whose symptoms were, however, decidedly better, his whole condition was so much benefitted that I was greatly encouraged and entertained strong hopes of his final recovery; but unfortunately, during August, 1877, he had a very severe attack of epilepsy.

Being in the neighborhood of the City Hospital, Dr. Dean was immediately called in and prescribed for him. For several days subsequently he had epileptiform convulsions, four or five daily at first, but each day decreasing in number and diminishing in degree. From this time till his decease, he grew rapidly worse evincing far more mental derangement. For about two weeks before death, every time I saw him he spoke very incoherently, and there was the blank, expressionless, vacant stare common to imbecility; his mind seemed very feeble and torpid, though he was easily aroused as from a reverie. His mother and sister, however, complained of his occasional violence of speech and action, amounting at times almost to raving madness, and simulating mania. This was, no doubt, in part, if not entirely, provoked by the unnecessary and somewhat harsh precautionary measures resorted to by them to make him secure, for being unduly imbued with a sense of fear, they frequently bound him in bed. Instead of being an exaltation of the cerebral function there seemed on the contrary—at least every time I saw him—rather a lowering, or depression thereof. Since his attack of epilepsy in August potassium iodide was again used, and afterwards iodoform internally, but without effect; they were abandoned, especially as the patient had now difficulty of deglutition, and consequently had to be fed like a child, and entirely upon concentrated nourishment, in liquid form, such as beef-tea, milk, &c. During the two weeks preceding death there was profuse

diaphoresis, especially about the upper part of the body and arms, nearly every night, and frequently through the day. Pulse comparatively regular, though small and weak. Respiration almost entirely diaphragmatic, except when he made, every few minutes, costal respiration, during which inspiration was slow and laborious, and accompanied with sinking in of intercostal spaces, and gasping as if respiration were insufficiently performed. Prolabia thick and congested. Bowels constipated, and requiring enema every third day. Frequent involuntary micturition. He sank to a mere organic existence, and finally died on the 17th of October, 1877.

In making the *post-mortem* I was assisted by Dr. Mudd, for whose kindness I take this opportunity to express my thanks. I must confess that I was greatly disappointed at not finding a syphiloma at the base of the brain, about the floor of the fourth ventricle or near the anterior margin of the pons, but the autopsy revealed what was far more interesting to me, viz: Softening of the brain or a portion thereof, from thickening, (doubtless syphilitic), of some of the arteries. The following are notes taken at the time:

General congestion of the pia mater, whose vessels are somewhat turgent and prominent. Middle and posterior lobes somewhat softened. Arachnoid between chiasm and crura cerebri thick and opaque, and hardened at point of emergence of the third pair of nerves, which are themselves somewhat thickened. Arachnoid thickened also in front of chiasm. Basilar artery thick, especially at its anterior extremity. Pons Varolii softened. Unusual quantity of serum. Great softening (deposit-like), at junction of anterior and middle lobes. Horizontal section showed *puncta vasculosa* unusually large and well-marked.

Corpora striata—left firm and normal in external appearance; right softened. Posterior cornu of right lateral ventricle very much softened and friable. Left lateral ventricle seemingly normal in anterior and posterior cornua, but soft and easily broken down with the finger. Right choroidal plexus filled with dark grumous blood, (ante-mortem effect, no doubt), and disorganized. Optic thalamus of the right side, soft, and apparently disorganized; left, firmer and seemingly normal. Numerous well-marked clots at posterior surface of right optic thalamus.

Cerebellum—superior surface apparently normal. Corpora quadrigemina disorganized, and interspersed with clots, and

filling aqueduct of Sylvius even down to the fourth ventricle. Superior surface of the right side of the cerebellum softened and disorganized; left firm. Fourth ventricle and spinal chord apparently healthy and normal. Middle and posterior lobes of cerebrum very friable, soft and disorganized, breaking on the slightest touch. More marked on right than left side, and posterior than middle lobe.

Dr. Carson: In the case that I related, the posterior lobe was entirely softened, having a consistency little more than that of cream. At the same time, there was no paralysis whatever; there seemed to be no lack of co-ordination. I think syphilitic affections of the vessels must be an exceedingly rare affection, or it certainly would not have escaped the notice of such close observers as Rokitsansky and many others, who have failed to notice the subject. It is said that recently the subject has occupied the attention of the profession a great deal, but in searching authorities I can find very little information in regard to it. In Bryant's Surgery, and the last edition of Erichsen, it is merely mentioned that fibrinous deposits *may* occur in the walls of the vessels, the result of syphilis. I had another case at the hospital which corresponds very closely with Dr. Gebser's, in which I failed to get a post-mortem. The patient presented himself with paralysis of the right side, and gave a history of syphilis. Iodide of potassium was administered in large doses, under which he greatly improved. There was also more or less involvement of the skin; this healed, and his power of locomotion was also greatly improved. Some months afterwards he was again admitted to the hospital. The ulceration of the skin had re-appeared, paralysis had increased, he was having spasms, and there was a continual twitching of the arm of the side affected. He died shortly after his entrance. My diagnosis was gummata of the brain, but I had no opportunity of verifying it.

Dr. Ford: Dr. Carson's first case is, I think, very interesting, from the fact that there were no disturbances of motility, and no convulsions. It reminds me of a case in which I assisted in making the post-mortem, of an old man who had been hopelessly insane for many years, suffering from general insanity, evidently owing to lack of nutrition of the brain, due, no doubt, to atheromatous changes. Suddenly one morning he was taken with choreiform movements of the right arm and leg, which con-

tinued increasing in violence until his death, which occurred thirty-six hours after the seizure. At the autopsy we found the brain very much shrivelled; there was probably nearly a quarter of an inch between the surface of the brain and the walls of the cranium, and the vessels at the base of the brain were filled with atheromatous deposit, and the main vessels were affected in the same way. There was, if I recollect aright, some degeneration of the left posterior lobe of the cerebrum. The case is interesting, from the fact that we see from it that similar lesions of the brain will not always produce similar results. Perhaps it might be explained by a difference in chronicity. In this case I have no doubt that the immediate source of the disturbance was the formation of a local thrombus, by which the supply of blood was cut off from a certain tract, and in the periphery of this zone of denutrition there arose that excitement which was reflected upon the muscles.

Dr. Briggs: I recently had a case of epilepsy, which, after considerable study, I attributed to syphilitic lesion in the brain; and looking up the literature of the subject, I found that Aitken quotes a writer named Zambaco, and from the use which Aitken has made of his paper, I judge that he has perhaps written more largely on conditions of the brain resulting from syphilis than any one else. I put this case of mine on antisyphilitic treatment, under which there was a cessation of the epileptic seizures for a time, but about ten days ago they recurred with extreme violence, and he had fourteen within a few hours. It is quite probable that the patient is dead ere this.

Stated Meeting, June 9, 1879. Dr. Ed. Montgomery in the Chair.

SYPHILITIC LESIONS OF THE ARTERIES.—(*Continued.*)

Dr. Ford: Since our last meeting, Dr. S. T. Newman has taken me to see a very interesting case of his, illustrating the subject then discussed. The patient had been a soldier, as I understand, a very intelligent and thoroughly educated young man. He had a syphilitic history dating back some few years, and about a year ago he experienced a sudden attack of hemiplegia of the right side, without loss of consciousness. He has slowly recovered from this, and is now able to use his right leg, but power over the arm has not yet altogether returned.

There is now a contraction of the muscles of the right hand, of the nature, in my opinion, of Todd's *late rigidity*; the fingers and thumb are forcibly bent in upon the palm. Curious enough, under the influence of the *Faradaic* current, he can straighten those fingers out. He has had absolute aphasia, though he can hum a tune, and decided agraphia, but now he is able to write, leaving out occasionally a word or two. There has evidently been a thrombotic occlusion of one of the arteries of the base of the brain, probably the artery leading to Broca's convolution and its neighborhood. We have in this case an indisputable instance of syphilitic arterial lesion. A year ago (March 30, 1878) I stated before the St. Louis Medical Society, in connection with this very subject, that of late years much attention has been given to the relation of syphilis to aneurism, I may say to vascular lesions of all kinds, in syphilis, and their connection with athoromatous degeneration due to this malady. The citations I have noted on this subject show that the whole matter has been the subject of a great deal of attention for the last five years. Several well-written editorials on the subject are to be found in the *Lancet*, and Maunder, Broadbent, Wilks, Moxon, and especially Hughlings Jackson, have interested themselves on the subject. Lancereaux has lately published a monograph on arterial lesions in syphilis, and Heubner discusses the matter very fully in the twelfth volume of Ziemssen's *Encyclopædia*. I would like to direct especial attention to the existence of an unduly high blood-pressure in syphilis, and its well-known danger, especially great under such circumstances. Heubner's description of the lesions of intracranial arteries due to syphilis, and the associated symptomatology, is very interesting. He details a number of cases dying of simple paresis, which he ascribed to concentric hypertrophy of the walls of the vessels of the brain, whereby their lumen was so restricted, that progressive denutrition of the brain necessarily ensued.

Dr. Hardaway: I feel obliged to Dr. Ford for his interesting remarks and citation of cases and authorities; yet, as I understood the discussion the other night, we were discussing syphilis of the cerebral vessels, and not in its relation to aneurism generally. It has long been suspected that syphilis played an important part in the production of aneurism, and the success occasionally obtained by the iodide of potassium treatment, as recommended by Balfour, has been thought to find its explana-

tion on this supposition. I reiterate the statement made the other night, that the literature of syphilis of the arteries is meagre, and what we know of the subject in a definite manner mostly dates from the comparatively recent investigations of Lancereaux.

Dr. Ford: Nothing can be more satisfactory than Huebner's remarks on the subject, which, however, I have seen but lately. At the time I expressed myself, as stated before the St. Louis Medical Society, what I said was intended to apply to aneurismal affections of the vessels generally, both in the trunk and the head. Heubner speaks of reporting fifty cases precisely analogous to the case reported the other night, and several cases have also been reported before the Pathological Society of London, so that our cases in St. Louis are by no means original, although somewhat rare.

BELL'S PALSY.

Dr. Todd: The case I shall report is a very interesting one in my department of otology,—complete paralysis of the left side of the face, following upon an attack of acute otitis. I saw the man about five days after the inflammation of the ear began; he had the usual acute symptoms, severe ear-ache, redness and swelling of the membrana tympani and adjacent tissues in the meatus. He had also complete paralysis of the muscles of the same side of the face. The muscles absolutely refused to respond to the Faradaic current, although they responded quite readily to the interrupted galvanic current. It is singular, in view of past experience, that in so short a time they should have lost their power of voluntary contractility. I have treated the case since; the muscles still respond readily to the interrupted current but not to the Faradaic. The last time I saw him, about ten days ago, he was still paralyzed. I should state that at the outset the left side of the tongue and the roof of the mouth were covered with an herpetic eruption. Of course I do not know what the out-come of the case will be. His hearing is now partly restored in the affected ear.

Dr. Montgomery: What caused the inflammation?

Dr. Todd: Taking cold. He was a baker, and probably got over-heated at the ovens, and then stood in a draft of air.

Dr. Moses: Did the paralysis not commence at the onset of the disease?

Dr. Todd : No; I asked particularly about that.

Dr. Montgomery : I would beg to suggest whether, in the treatment of these cases, electricity is not used too early. If a man has a broken leg you would not think of using any means to make him walk. In the cases of Bell's paralysis brought on by syphilitic rheumatism or by inflammation of the bone, or by the most frequent cause, cold, the use of electricity or anything of the kind in the early stages of the disease, I venture to suggest, may not be very good practice. In cases dependent upon cold, my idea is to apply leeches just behind the ear, and warm fomentations afterwards, and keep the bowels well regulated. Perhaps a course of bromide of potassium might do a great deal of good. I have great faith in that medicine in all inflammatory diseases of the brain, more especially in children. Of course, if there is a syphilitic taint, I would give the chloride of mercury and iodide of potassium.

Dr. Moses : I imagine Dr. Todd used the electricity more for purposes of diagnosis than for treatment.

Dr. Todd : Yes, of course. I used it afterwards for the purpose of preventing the muscles from falling into a condition of too great atrophy. I relied on anti-phlogistic measures for the relief of the otitis. Undoubtedly a great deal of mischief has been done by the reckless or general use of the Faradaic current in treatment.

Dr. Moses : I think one of the peculiarities of Bell's palsy is that it appears rather suddenly where it is due to local causes.

Dr. Todd : I beg leave to refer to the two cases of Facial Paralysis described at a previous meeting of the Society, in which the facial nerve had suffered total destruction in the Aquæductus Fallopii, the patients being in the last stages of phthisis with chronic suppuration of the ear, and yet the muscles supplied by that nerve responded promptly to the Faradaic current. The nerve lesion, in both cases, was demonstrated at the post mortem. There was total paralysis. The response of the muscles to faradism was so instantaneous that the man was perfectly delighted, thinking he was surely about to be cured, when he felt the closure of his eye and mouth, and the other facial movements.

Dr. Kingsley : It is certainly true that, while it is often impossible to obtain a response from the nerves by the Faradaic

current, they will readily respond to the interrupted current. I had a case of Bell's paralysis emphasizing this.

Dr. Hardaway: That is equally true in cases of infantile paralysis.

Dr. Kingsley: I believe that in the treatment of the cases under consideration, Dr. Hammond has suggested the use of a thin rubber band, attached to the eye-lid and fastened to the brow by a small quantity of collodion. He is also in the habit of following the suggestions of Detmold, who first used a hook in the mouth, to which was attached an elastic band, and then had another hook which passed over the ear of the paralyzed side for the purpose of holding the corners of the mouth up; and he is inclined to think it assisted in expediting the cure. I suppose the cases most amenable to treatment are those due to syphilis and those from exposure to cold.

Dr. Moses: In the cases from exposure to cold, or the so-called rheumatoid cases, usually both muscle and nerve respond promptly to the action of electricity, both Faradaic and galvanic, and they are considered the most favorable cases—in fact, they usually get well by themselves. But where, later in the disease, the influence of the current is lost and the muscles fail to respond, it is considered that there is some degenerative change going on in the nerve; and the prognosis is unfavorable. So far as the treatment is concerned I do not think the use of electricity to be of much benefit, unless the case be greatly retarded.

Dr. Todd: Reynolds, of London, gives a rather amusing history of a case: A man from Australia, with complete paralysis of one side of his face, applied to him for relief. Reynolds cured him and sent him home particularly happy, because he was once more able to *whistle*. He was a sheep-breeder, and being often left alone in the bush of the Australian wilderness, found that the most serious part of his affliction lay in the fact that he had lost his chief solace—he could not whistle.

Dr. Kingsley: The lack of the ability to whistle is of diagnostic value.

Dr. Spencer: The disturbance of the nerve in suppurative inflammation of the middle ear, which leads to facial paralysis, has so definite an origin that I feel disinclined to place it in a class with all facial paralyses under a general term like that of Bell's palsy. Facial paralysis may occur as a functional affec-

tion ; or it may have an intra-cranial origin and be a very grave symptom. The significance of it differs with the differing causes to which it is referred ; and the indications for treatment differ correspondingly.

Facial paralysis associated with a suppurative process in the tympanic cavity may arise from an invasion of the facial nerve when its bony sheath has been destroyed by necrosis ; or it may result from congestion or compression.

I call to mind illustrative cases, associated with ear diseases, which have occurred to me,—one a case of palsy of the parts supplied by the facial nerve, in a boy of fourteen years, from whose right ear I removed the cochlea (exfoliated). Dr. Todd saw this case with me in consultation. Very shortly after the operation referred to, there was the paralysis described on the afflicted side. We would suppose that the palsy, which resulted in the course of a necrosis, would be complete and permanent—inferring that there must be organic lesion of the nerve. In this instance it was of short duration, and of course the disturbance was not to be referred to such an injury. Cases have been recorded of destruction of the Fallopian canal by necrosis without paralysis and other cases of similar destruction, followed by complete paralysis, from which the patient recovered. In the latter case the paralysis would be due probably to an exudation and the recovery to its absorption. The boy to whom I have referred had complete paralysis and of sufficient duration to be a source of great anxiety to all interested. His ear made a good recovery, finally, from the suppurative process and (after six years) there has been no more palsy. I recall cases of temporary and incomplete paralysis and cases of twitchings of the muscles of the face and of the *orbicularis oculi* which were due to slight irritation of the nerve and were transient. From my experience I should say the prognosis was always favorable, and I should be led to limit my treatment to the indications which might exist for it in a condition of the tympanum.

I beg to be allowed to narrate a case of facial paralysis which promises to be of more than ordinary interest if it has its origin in changes which have taken place in the middle ear, as I suspect. A year and a half ago I first saw the young boy, then about six years of age, after the membrana tympani on the right side had ruptured in the course of an acute inflammation

of the tympanic cavity. I treated him for a short time, with a favorable result. The perforation in the membrane was closed over. Shortly after this time the family moved to another State. Six months ago I received a letter from the mother of the boy, saying that he had had another severe attack of the ear-ache and that his ear was discharging again. I advised her to send him immediately, and she did so. I found this time a more extensive opening in the drum-head than before, and profuse suppuration. The case did not yield so readily to treatment as in the first instance. I had him under my care for about two months before his trouble was entirely relieved. I was able to discharge him with an intact membrane, as I had done before. Yesterday the boy presented himself in my office, his mother with him, showing marked but not complete facial paralysis of the same side on which his ear had formerly been affected. An examination of the ear revealed nothing satisfactory. The drum-head remains intact. It is somewhat sunken, and shows cicatricial marks. I would only venture to suggest that there may be an incomplete Fallopian canal, and the paralysis may be due to contraction of tissues and compression.

Dr. Ford: I had a case some time ago of Bell's palsy, in which I used a blister behind the ear and local applications of unguentum hydrarg. and belladonna, and the patient got well very soon. I do not see anything very remarkable in what Dr. Todd alluded to, that the lost function occurred so soon after the affection began. I recollect that Wart Zoll called attention to that fact in reference to infantile paralysis, a somewhat analogous affection, and I think he said that three days is the period in which, if active measures are not made use of, the nerves will lose their sensitiveness to Faradaic electricity.

Dr. Todd: The point I considered particularly interesting was, that in the last case there was no response to the Faradaic current, whilst in two other cases mentioned, in which the nerves were entirely destroyed, the muscles did respond.

SUMMER DIARRHŒAS OF CHILDREN.

Dr. Montgomery: Some three or four years ago I published an article in which I gave my ideas rather fully with regard to the summer affections of children, and was very much pleased, the other day, by seeing some high authorities agree with me in one of the chief points that I made, viz: that those cases re-

ported in our mortuary statistics as cholera infantum, are cases of inflammatory diarrhœa,—entero-colitis, certainly a very malignant disease, and very hard to treat, and so insidious in its onset that many children die from it. We have quite a number of diseases in children here, occurring in the summer time; for instance, simple mucous or catarrhal diarrhœa, entero-colitis, cholera infantum and dysentery. The most fatal of these is entero-colitis. In simple catarrhal diarrhœa in children, very simple remedies, warm fomentations to the bowels, particular attention to the diet, mucilaginous and wholesome kinds of drinks and food, will generally effect a cure without much trouble. I would here say it is very important to scarify those children as soon as you find the gums are swollen or enlarged, and to do it again and again. At one time I was very much prejudiced against much scarifying, but I have seen so many cases in which it has been of benefit, that I have changed my opinion. I have sometimes scarified a child as often as six or seven times, with excellent effect. I have also found, in my experience, an excellent remedy in bromide of potassium. In teething cases, where the children are irritable, it is a most useful remedy. I give two grains to a child a year old, every three hours or so, and I also very often give a little antacid, such as bicarbonate of soda, etc., which will sometimes alleviate those cases.

I look upon entero-colitis as an inflammatory disease, decidedly so. When a physician is called to a case of that kind, he will generally find the child feverish—the fever being either intermittent or remittent in type. There will be some portions of the twenty-four hours in which the child will be very hot and dry, and it will have a great inclination to throw up. The bowels will be exceedingly irritable, and the stools will be very varied in character, sometimes putrid and mixed up with slimy mucus; and if the case is aggravated, a little blood will occasionally appear. The child will become thin, and wish to lie on its face; will have no appetite, but will drink incessantly. My favorite drink for them is barley water. A little ice-water, or the white of eggs beaten up in water, or a solution of gelatine, are all very good. But in those cases, I believe very much in leeching the hypogastrium and hypochondrium, followed by hot fomentations, with which I generally mix a little mustard. If the evacuations from the bowels are of a clay-bank color, or

turbid; or indicate torpidity of the liver, I give a fractional dose or two of calomel, until the character of the stool is changed. I must say that in those cases of entero-colitis in which there is great irritability both of the stomach and bowels, I have great faith in small doses of mercurials.

They may often be given in conjunction with prepared chalk and a little Dover's powder. Ipecac is a remedy which has a most happy effect in those cases where there is an inflammatory action of the mucous membrane of the bowels, and has also a favorable action on the liver. I believe all authorities agree that in those cases, when fatal, the mucous membrane of the alimentary canal will be changed into softened and diseased tissue, showing that there has been a very serious organic disease going on, and that the inflammation in the first stages has been severe, has led to structural lesion of the intestines; and then, when that has taken place, any remedy is very apt to fail. In those cases where I think there have been pathological changes of that kind, I have often tried other remedies, as the liquor ferri pernitratiss, one or two drops four or five times a day, in a little water. Where the child is of a really scrofulous constitution, after mercurial doses, I have often given iodide of iron with cod-liver oil in a very weak emulsion, and it agrees with them very well. Bismuth is a very popular remedy, but I have not such faith in it as most have. It is an almost universal remedy in sub-acute cases of diarrhœa, but I have not much confidence in it. I will remark that generally when it is given it should not be given in milk. When I prescribe bismuth at all, I give it with gum arabic and a little sugar dissolved in water. Sometimes it has a very good effect in lessening watery operations. One thing in my experience—I may be wrong, but I have a very strong prejudice against using astringents in those cases of diarrhœa. In looking over the prescriptions in drug-stores, you will find that there has been for years gone by, a very prevalent custom of giving astringents, such as tincture of catechu, kino, laudanum and paragoric. I think in many cases these remedies are pernicious. I believe that head troubles are apt to arise under their use. I am really afraid to give those astringents, except in cases which have become chronic.

With regard to cholera infantum, I think it is a great mistake in registering to so many of those cases as such. Cholera in.

infantum in children is very like cholera morbus in the adult,—they generally get well. I call to mind a great many cases of cholera infantum where they were apparently hopeless, where I was about to give them up, where, when a cup of fluid was given them, they would drink the contents with the utmost greediness, and almost try to eat the cup,—but even those cases have generally got well by simply using mucilaginous drinks, poultices to the abdomen and so forth. In those cases of cholera infantum, the stools are generally like those in cholera morbus—almost colorless, like rice-water or chicken soup. If you try to check them by giving astringents, you will almost certainly seriously injure your patient. I give a little mercurial to act on the liver, then make hot applications to the abdomen; counter-irritation there is very important, both in cholera infantum and entero-colitis.

I do not see how it is so many patients should be set down in the mortality reports as dying of cholera infantum, because the affections in those cases are so very distinct.

Dr. Gregory: How do you like saline aperients in conditions similar to those you refer to?

Dr. Montgomery: In a *strong* child and in the early stages of entero-colitis, I have great faith in giving a little Rochelle salts.

Dr. Gregory: How do you like sulphate of magnesia?

Dr. Montgomery: In dysentery, in a grown person, I have great faith in it.

Dr. Gregory: Do you combine opiates with the salines?

Dr. Montgomery: I prefer to give the saline alone, but I occasionally give a little Dover's powder.

Dr. Gregory: Has it been your observation, Dr. Montgomery, that so-called cases of cholera infantum are often complicated with head trouble?

Dr. Montgomery: Yes sir.

Dr. Gregory: And the possibility is, that the fatal cases resulting from head symptoms are not simple cholera infantum?

Dr. Montgomery: Yes, and that is the reason I alluded to the use of bromide of potassium in those cases.

Dr. Gregory: Do you find that the application of leeches does good in those cases?

Dr. Montgomery: Yes sir.

Dr. Gregory: I would like your opinion with regard to a very

commonly spoken of disorder, but about which I have had some doubts with regard to its nature, namely ; tubercular meningitis—a very common name in mortality reports—whether tubercular meningitis, so-called, is not often a simple meningitis?

Dr. Montgomery: Yes, I think it is.

Dr. Kingsley: But at the same time you will find a great many cases of meningitis in which you can find no tubercle at all. But in genuine cases of tubercular meningitis you will very generally find tubercle in some portion of the body, in the lungs, or elsewhere. Sometimes the presence of tubercle can be ascertained by simply making an examination of the eye. I remember a post-mortem that was made in the Hospital of Paris, where one of the *internes* made an examination, removing the eye and examining the humors of the eye, and made an exhibition of the tubercular matter which he found there. They not unfrequently made use of examination of the eye in their diagnosis. It was only a very minute granular matter; they would be unable to see it with the naked eye.

Dr. Carson: I would like to ask some of the experienced gentlemen present, if they do not find that most, or many of the diarrhœas of children are the result of indigestion; and if they, again, do not find it a very difficult matter to find proper nourishment for children?

Dr. Kingsley: I think that nearly all cases are due to indigestion. I know Jacobi makes this statement, that forty per cent. of deaths in the first year of life are from derangement of the digestive organs. Further: I know Jacobi makes the statement also, that it is a fallacy to believe that the second summer with children is the dangerous season; that in reality it is the first. You may have noticed in the statistics of last week, that seventy-seven children died under one year of age, and that only a hundred in all died. Jacobi says that in the first year of life the fatal diseases are chiefly of the alimentary canal, and in the second, pulmonary diseases. A vast majority of children are eating things they should not eat; mothers frequently tell us that they give various substances, even fruits. Then, on the other hand, they are often fed too frequently during the day. A mother came to me to-day who wanted to nurse the child every half hour—a child about two months old. As a matter of course, it takes some little time to digest even milk, and milk that is in the stomach should be digested before any more is given.

Dr. Spencer: Negro women, as you know, put a lump of fat beef in the child's mouth as soon as it is born.

Dr. Gregory: What is your opinion, Dr. Montgomery, of lime-water?

Dr. Montgomery: I think it is very excellent, although I do not like to give much of it, because I think that after a while it has a depressing effect on the digestive organs. But where there is much acidity of the stomach a little lime-water, with good sweet milk, is an excellent thing. My favorite remedy is bi-carbonate of soda. I forgot to mention that in many cases of entero-colitis, the child has very large stools, and where these are present, I find a very excellent remedy in pepsin and nitro-hydrochloric acid, with a little syrup and water, to be given immediately after it takes its food.

Dr. Gregory: Do you use pepsin or lactopeptin?

Dr. Montgomery: I have used both; but my favorite recipe is the pepsin and nitro-hydrochloric acid.

Dr. Kingsley: For those troubles, entero-colitis, Smith, in one of his reports to the Medical Society of New York, not published in his book, gives this prescription:

R.	Bismuthi subnitratis,	ʒii
	Lactopeptini,	ʒi ss
	Tr. opii deodoratæ,	gtt. xvi
	Syrupi simplicis,	ʒ ss
	Misturæ cretæ,	ʒi ss

S: Teaspoonful to a child one year old.

Dr. Montgomery: I do not believe in combining bismuth with an acid.

Dr. Kingsley: Jacobi gives this prescription: 1 gr. sub-nitrate bismuth, 2 grs. prepared chalk, and about one-third grain Dover's powder; one powder every three or four hours.

Dr. Gregory: There is a point in the remarks which I think an interesting one; that in regard to the use of minute doses of mercurials. There is certainly a good deal of difference of opinion in the profession with regard to that point. My preceptor taught me thirty years ago to give minute mercurials every four hours, with sometimes a little soda, sometimes a little chalk, and I have followed it up to the present day without any reason for changing, and yet I am frequently brought in consultation with

doctors and I find they have no faith in the thing. The doctor's experience seems to have accorded fully with my observations, and I have been amazed, from time to time, during my professional life, at the wonderful effect of minute mercurials. I put a little antacid with it, and throw it dry on the tongue. Vomiting stops by its use, the diarrhœa is arrested, the dejections are all changed in a little while, and the general condition is ameliorated rapidly. This, with a little chalk-mixture, will stop a very large proportion of disorders of digestion in children. Yet, I have met with excellent physicians who never use it at all.

Dr. Kingsley: I have found that sometimes minute doses of calomel will arrest vomiting and prevent decomposition in the alimentary canal, in consequence of the calomel being converted into a sublimate. I think salycilic acid is very good in those cases where the discharges are very foul and disagreeable.

Dr. G. A. Moses: I was glad to hear Dr. Montgomery's remarks, based upon a long, extensive, and successful experience, and because his views accord with and confirm my own. Like him, I believe that a large number of cases called cholera infantum are not cholera infantum at all. The majority of such cases will get well by themselves. When they do not, it is because of some complication, or they are in an inflammatory condition and result in entero-colitis or gastro-enteritis or brain-trouble. In regard to the brain trouble, I consider cholera infantum a disease of the nervous system—of the nerves of animal life. Where the irritation is very great, and the discharges very large and rapidly following each other, we have a reflex condition affecting the brain, resulting in convulsions, with perhaps œdema secondarily, resulting from anæmia—the so-called "spurious hydrocephalus." Only a few days ago I had an example of the spontaneous cure of cholera infantum. The child was exhausted, vomiting everything, even a teaspoonful of cold water. I ordered a mixture of magnesia to be given every fifteen or twenty minutes, with the egg drink that Dr. Montgomery speaks of. When I got home, about ten hours afterwards, I found a message from the mother that she had lost the prescription, but the child had stopped vomiting and purging, simply on the use of a little iced egg-water, and the next morning it was well. I think that would be the history of many such cases. But where purging is frequent, and especially where the operations are very thin, white or slightly yellow, exhibiting a condition of infiltration of the

mucous tract, small doses of mercurials, from one-sixth to one-tenth of a grain of the mild chloride, every hour, are most beneficial. As to the use of opiates and astringents, I think they are absolutely pernicious, and result in producing the sequelæ of the disease, which we have to fear. Oftentimes there is intense collapse, then I find a little old brandy the best stimulant. Bromide of potassium answers oftentimes very well in allaying the nervous irritation, without the use of opiates.

Dr. Gregory: Has it not occurred to you that when you see a case of cholera infantum, that when you have made up your mind that the disease will cure itself, that if you had seen the case before the cholera infantum had declared itself, that you would have given some dose that would have caused diarrhœa? My patients sometimes say, after I give them a dose that they have had a fearful purging.

Dr. Moses: Wherever fever manifests itself, I consider mercurials a necessity. In regard to vomiting, I have found that the old spice poultice is excellent; if you cannot get that, hot fomentations will give very prompt relief. Sometimes, mixed with this, a little quinine or cinchonidia, has a very happy effect. In diseases of an inflammatory character, my experience coincides with that of Dr. Montgomery. I am satisfied that salines do not answer the same purpose as mercurials. The use of astringents in diarrhœal affections in children, after the acute stage has passed away, will often be necessary. There will simply result an irritation, debility of the blood vessels, where there is frequent peristaltic action on the one hand, and an increased discharge of serosity on the other. For prolonged discharges of blood, an occasional opiate, combined with an astringent, acts very beneficially. For this purpose I find liq. ferri pernitratidis acts excellently. My chief objection to fomentations is the increased heat they produce. The diseases to which we now refer are hot-weather diseases, and I do not consider an increase of temperature desirable. Summer diarrhœa is considered by some to be due to bacteria, which play so important a figure in surgery, and bacteriacides have been recommended—quinine, salicylic acid, and very minute doses of corrosive sublimate.

Dr. Gregory: I would like to ask Dr. Montgomery if he has used the sulphites much?

Dr. Montgomery: A few years ago I used them very much, but I have not much faith in them at present.

Dr. Kingsley: Like Dr. Montgomery, for a time I used them very often, and afterwards abandoned them entirely.

Dr. Moses: I have used them in adults with great benefit, but only in a limited class of cases. In regard to tubercular meningitis, I do not think there can be any more doubt about the diagnosis of tubercular meningitis than in regard to the diagnosis of tubercular disease of the lungs. It is not like any other of the meningites that I know of, either in its onset, course or termination.

Dr. Gregory: These remarks remind me that a few weeks ago a child was brought to the notice of Dr. Moses and myself, which we both, after examining for some time, said, "This is unquestionably a case of so-called tubercular meningitis." There was something in the cut of the eye, something in the pose of the head, something in the expression of the face—there was something about the case, which corresponded to the symptomatology of this trouble. The child died a few days afterward. We learned it had had convulsions two or three days before we saw it, and it had convulsions soon after we saw it. It was clearly a brain trouble. But the word "tubercular" is, to me, a something that I cannot exactly catch the point of. That it is an inflammatory trouble, there can be no question. I can see that it is specified; it is certainly peculiar; but whether it is distinguishable from a variety of inflammatory products, I have never yet made clear to my mind, so that a man could say "that is nothing but a little cheesy product, and this is morphologically tubercle, without question. Often a man, when he finds an inflammatory product which he cannot define, says, "It is tubercle!" I say it is specified; it is different from a common inflammation; it is perhaps specified, but I do not see you help the matter at all by saying "it is tubercular."

Dr. Moses: I take it we mean by tubercle a peculiar growth due to some diathetic condition, of which, clinically at any rate, we know a good deal.

Dr. Gregory: Clinically, it is only a peculiar variety of inflammatory process; further than that, we cannot go. I take exception to the word "tubercle," and I take exception to the word "struma." I fail to see how they help us out of the difficulty, and I have tried my best to see it.

NOTES AND EXTRACTS.

CHRONICALLY ENLARGED TONSILS, painted twice daily with citron juice, may be cured within a fortnight.

PROF. NEUBAUER, joint author with Vogel of the well-known work on Urinary Analysis, died at Weisbaden, June 2d.

THE MEAN TEMPERATURE of May, as observed at Greenwich, England, was 48.40° F., and a rainfall of 3.4 inches.

M. PROUST has been elected successor to Tardieu, in the Section of Hygiene and Legal Medicine, after a very warm contest.

HICCUPS, in adults or children, may be arrested by giving a lump of sugar saturated with table vinegar; or, an œsophageal tube may be frequently passed.

A NEW DISTRICT MEDICAL ASSOCIATION was organized at Moberly, June 16th, 1879. Five counties were represented, and thirty-nine members were present.

THE FRENCH ASSOCIATION FOR ADVANCEMENT OF SCIENCE will hold its eighth session at Montpellier, beginning August 28th and continuing for eight days.

THE THIRD ANNUAL SESSION of the American Dermatological Association will be held at the rooms of the Academy of Medicine, 12 W. 31st street, New York, on the 26th, 27th and 28th of August, 1879.

THE CHAIR OF THERAPEUTICS, in the Faculty of Medicine, of Paris, made vacant by the death of Gubler, has been filled by the election of M. Hayem. M. Bouchard now occupies the chair of General Pathology.

THE INTERNATIONAL MEDICAL CONGRESS is to be held at Amsterdam, from the 7th to the 13th of September inclusive. It is proposed to honor the memory of the late Dr. Murchison with some memorial befitting his high public and private worth.

INTRAVENOUS injection of aquæ ammonia, $\frac{1}{2}$ to 1 drachm, mixed with an equal part of water, has been used as a powerful means of stimulation when other measures have been of no avail: injected into any of the veins at the bend of the elbow.

BRONCHINE.—R. Magnesiae sulph., $\bar{3}i$; liq. ammonii acetatis, $\bar{3}ij$.; syrupi limonis, aquæ, $\bar{a}\bar{a}$ $\bar{3}ij$. M. S.: A tablespoonful every three or four hours.

REMEDY FOR TOOTHACHE.—After cleansing the decayed tooth, pack well into the cavity a pledget of cotton saturated with compound tincture of benzoin.

PALATABLE CASTOR OIL.—Rub two drops of oil of cinnamon with an ounce of glycerine and add an ounce of castor oil. Children will take it as a luxury and ask for more.

TO TEST FOR ALBUMEN.—Da Costa says drop the fluid slowly down the side of the test-tube upon the nitric acid. If any albumen be present, an opaque white ring is seen to cover the surface of the acid. This is the most delicate test with which I am acquainted.

IRRITABLE BLADDER.—Dr. Piffard, of this city, speaks favorably (*Chicago Med. Jour. and Exam.*) of a tincture of “shepherd’s purse” (*capella bursa pastoris*) in this affection. Ten to thirty drops of tinct. thlaspi, as it is called and sold at homœopathic pharmacies, several times a day, he has found to act satisfactorily.

It is asserted that strong coffee, without sugar or milk, given in teaspoonful doses every ten minutes, will arrest the vomiting of cholera infantum; and that a tablespoonful given as frequently to adults will relieve the vomiting of cholera morbus. It is an article which has the merit of being without danger at all events.

EXTERMINATOR OF COCKROACHES AND CROTON BUGS.—Take *two* parts by weight of flour, *four* parts of fine sugar, *one* part of powdered borax, and *one* of unslaked lime, thoroughly stirring the whole together. Keep the powder in a dry place. For use strew some of the powder on papers, put them in the places infested, (taking care that no liquids be left uncovered), and repeat this process several nights in succession.

TREATMENT OF ACNE.—Mr. Erasmus Wilson was, I believe, the first to propose sulphur-lotion in acne punctata. The usual lotion of flower of sulphur with glycerine and water is undoubt-

edly a valuable remedy; but, from the readiness with which the sulphur separates, it is inelegant, inconvenient, and not quite satisfactory in its results. A far more efficacious mode of using sulphur is to dust the face with pure precipitated sulphur every night, with an ordinary puff used for toilet purposes. This will usually effect a cure in about a week. Recently two severe cases of acne of some years' standing (which had resisted the ordinary modes of treatment) yielded at once to sulphur thus applied. I might add that if the sulphur be scented with oil of lemon or roses it will really form an elegant cosmetic.—*James Gage Parsons, M. D., in British Med. Journal.*

HABITUAL CONSTIPATION.—Dr. D. H. Cook, of Albany, uses the following:

		Grammes.
R.	Aloes,	gr. x 65
	Ext. Bellad.,	gr. ij 15
	Ext. nucis vom.,	gr. ij 15
	Ext. hyoscyam.,	gr. x 65
	Podophyl.,	gr. x 65
M.	Div. in pil. No. x.	

One of these pills should be taken every day, or as often as is necessary to produce evacuations satisfactory in number and quantity. When this has been accomplished, the dose should be continued for some weeks, then gradually diminished, and finally, when it has become insignificant, stopped. The same pills can be used in smaller doses for young persons and children.—*N. Y. Brief.*

CUPRUM AMMONIATUM IN NEURALGIA OF THE FIFTH.—Dr. Féréol has obtained marked and sometimes instantaneous relief from the exhibition of cuprum ammoniatum, in obstinate cases of neuralgia of the fifth pair of nerves. He does not claim to have found an infallible remedy, but modestly asks for it a trial in this troublesome affection. In one or two of the cases, the patients who were relieved had previous to its administration been deprived of sleep for weeks. The commencing dose should vary from gr. $\frac{1}{10}$ to $\frac{2}{10}$ a day, gradually increased to gr. $\frac{3}{10}$ or even $\frac{5}{10}$, carefully watching the susceptibility of each individual. It is best administered in pills or capsules, and the daily amount above indicated should be divided into eight or ten parts, to be taken at intervals, preferably with food. It is important to continue the treatment for twelve or fifteen days after the cessation of pain.—*Bulletin de l'Académie de Médecine.*

CHLORIDE OF LIME AS AN INSECTICIDE.—*Le Cultivateur* remarks that rats, mice and insects will at once desert ground on which a little chloride of lime has been sprinkled. Plants may be protected from insect plagues by brushing their stems with a solution of it. It has often been noticed that a patch of land which has been treated in this way remains religiously respected by grubs, while the unprotected beds round about are literally devastated. Fruit trees may be guarded from the attacks of grubs by attaching to their trunks pieces of tow smeared with a mixture of chloride of lime and hog's lard, and ants and grubs already in possession will rapidly vacate their position.

THIMBLE BLISTERING—MORPHIA EPIDERMICALLY.—An ordinary sewing thimble, a little loosely picked up raw cotton, enough aqua ammoniæ (strong) to saturate cotton without running out, are the preliminary agents required. Gently press the thimble over the selected spot until sensation of heat has been felt for two or three minutes; wipe away any ammonia which may remain on the surface; now with the finger rub away the superficial skin; apply dry morphia by at first gently rubbing on, and then carefully adding a drop of water. A small quantity of morphia may be repeated at short intervals until your patient feels its effects, or is satisfied with the relief obtained.

Be sure you hold on until you can get the blistered surface. Don't rub at the skin and then apply ammonia; otherwise your patient will not be impressed with the beauty or comfort of the operation, and on another occasion might throw a damper over your zeal by calling for the syringe, or wishing some other mode to be used.

For affections of the face and head, I select the mastoid portion of the temporal bone as being the best point for the application of the blister.—*J. C. Watson, M. D., in Va. Med. Monthly.*

THE TREATMENT OF DYSMENORRŒA.—Dr. Woodbury, of Washington, introduces a very small tent of elm bark into the cervix about a week before the menstrual flow commences. After introducing the tent, a plug of cotton, to which a cord is attached, is passed through the speculum to keep the tent in situ. The plug is then saturated with carbolic acid and olive oil, or glycerin, in the proportion of 1:7. By means of the cords

attached to the tent and plug, the patient removes them the next morning, and uses an enema of water and Castile soap. In an obstinate case, a tent is used every day up to the time at which the flow should commence, unless it is established sooner, substituting larger and larger ones as the cervical cavity becomes dilated. As soon as the tent, on removal, is found to be freely stained with blood, its use is suspended until a week before the next period. The remedies administered internally are concentrated tincture of helonias, fluid extract of ergot, tincture of gelseminum, or syrup of the iodide of iron. The patient commences to take one of these three weeks before the regular date of her flow, and continues it till this is fully established. She then suspends it for a week or ten days, after which she resumes it. Sometimes better results are obtained by using two of the above-mentioned remedies alternately, as the helonias and the iron, or the ergot and iron. A gentle current of electricity is passed through the uterus once a day for two or three days before the period. This treatment has been successively employed in cases of dysmenorrhœa due to sub-acute inflammation or displacement resulting in the constriction or occlusion of the cervix.—*Virginia Med. Monthly.*

NITRITE OF AMYL IN CONGESTIVE CHILLS.—In the November number of the *Recorder*, I see that Dr. T. W. Rankin advises the hypodermic injection of belladonna in “congestive chills,” and his cases show that the treatment is good.

I treat such cases as follows: Let the patient inhale from 3 to 5 gtt. nitrite of amyl; and within from twenty to thirty minutes the surface becomes warm, breathing natural, and circulation restored. Then have the patient bathed with the following:

R.	Spts. frumenti,	15 ounces.
	Tinct. capsici,	1 ounce.
	Quiniæ sulph.,	1 drachm.

Mix.

Also give a tablespoonful of the following mixture, every hour, till reaction is fully established:

R.	Ammonii carbonatis,	40 grains.
	Syrupi aurantii,	4 ounces.
	Spts. frumenti,	1 ounce.
	Creasoti,	5 drops.

Mix.

Should the pulse flag, repeat the inhalation of the amyl, but be careful not to use too much, or too often. As soon as the reaction is well established, stop the ammonia mixture, and give freely of quinine in solution. Do not trust it in pill or powder, for it may not be absorbed.

I also get good results from the inhalation of nitrite of amyl in the collapse of cholera morbus, and should expect to derive benefit from it in the collapse of cholera.—*W. R. Smith, in Ohio Recorder.*

MORTALITY TABLE.

CITIES.	ESTIMATED POPULATION	DEATHS.	DEATH RATE PER 1000.
New York.....	1,095,805	*2,228	26.78
Philadelphia.....	901,380	*1,037	15.00
Brooklyn.....	564,448	*884	20.33
Chicago.....	460,000	†639	16.65
St. Louis.....	450,000	*630	18.20
Boston.....	375,476	*436	15.78
Cincinnati.....	280,000	*470	21.88
New Orleans.....	210,000	*436	27.00

* For the four weeks ending July 5th, 1879.

† For the month of June, 1879.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.				METRIC. Gms.	
℥i.	or gr. i. equals	-	-	-	06
℥xv.	or gr. xv. equals	-	-	-	1
ʒi.	or ʒi. equals	-	-	-	4
ʒi.	or ʒi. equals	-	-	-	32

The decimal line instead of points makes errors impossible.

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.—*Metric Bureau.*

EXTRACT OF MALT.

The preparations of Malt, manufactured by the Trommer Co., are too well known to require further commendation. Palatable, easy of digestion, excellent nutriment and a convenient vehicle of unpleasant drugs, Malt fills a place in the treatment of disease of the utmost utility.

While it, in many instances, may entirely replace the distasteful cod-liver oil, it also forms an admirable vehicle for this food and enhances its efficiency. It is extensively used in the St. Louis Hospitals, and has become firmly established as an essential to the Pharmacy. Its cheapness, compared with the old German Extract of Malt, which it more than equals in potency, is a consideration of importance, as it enables the poor, even those treated at the free Dispensaries, to enjoy its benefits.

LACTOPEPTINE.

Lactopeptine has, in many instances, not only taken the place of Pepsin, but oftentimes proved more beneficial. Especially is it to be recommended in the digestive ailments of children. It is a preparation which can be relied upon as unvarying, and the published formula exhibits a happy combination of the most essential agents in digestion. It is not unpalatable, and may be administered with food simply, or in combination with drugs. An excellent combination in the treatment of indigestion, accompanied by diarrhœa, in young children, where mercurials are desired, consists of calomel, sub-nitrate of bismuth and lactopeptine. As a digestive we think it should be used like pepsin, in larger doses than is usually recommended.

[From the *London Medical Times and Gazette.*]

“Messrs. Warner & Co., deservedly obtain great credit for the excellence of their sugar-coated Pills; and the latest specimen that we have seen of them—the Pil Phosphori—appears quite worthy of the high reputation of the manufacturers.

“The pills are beautifully made and may be had of various degrees of strength, so as to contain from 1-100th to 1-25th of a grain in each pill. * * * * * * *

“We are glad to see that Messrs. Warner & Co. label the pills with the warning that “Phosphorus should be administered

with great care and by the direction of a Physician." Warner & Co's new preparations can be obtained from F. Newbery & Sons, No. 37 Newgate St., London."—Ed.

CINCHONIA.

Of the different alkaloids and salts of Peruvian Bark, we would prefer, for universal use, quinia—and sulphate of quinia; but because of its high price, notwithstanding the removal of duty on the quinia salts, and because some of the other alkaloids are nearly as efficacious as anti-periodics and tonics, we would speak a word in favor of one of them, namely, cinchonia.

This is one of the organic principles of Peruvian bark, though Huanuco bark contains it almost exclusively. It is white, crystallizable, inodorous and bitter, though less so than quinia. It forms salts with the acids, the most common of which is the sulphate.

Briquet found that it affected the nervous system similarly to quinia, but was one-third feebler. Other experimenters observed that it did not produce buzzing in the ears and disordered vision so speedily as quinia. In too large doses it occasions pain and sense of oppression in the anterior part of the head, pains about the præcordium, subsultus tendinum, and general debility and faintness.

In doses of three or four grains, the activity of the circulatory, respiratory and nutritive functions is increased, the pulse rises, perspiration occurs, and all the functions, including those of the brain, are rendered more active.

Combined with sugar of milk and soda, a tasteless powder is formed, which is especially eligible for administration to children. We have thus used it with very happy effect as an anti-periodic. To avoid any disagreeable effects, the dose should not be unnecessarily large, and bromide of potassium may be administered at the same time.

In conclusion, we would refer to what Mr. Diehl, in the late Transactions of the American Pharmaceutical Association, says: "The efforts made to introduce the cheaper cinchona alkaloids to favor have not met with the success their *absolute value as anti-periodics deserves.*" And this is especially true of cinchonia.

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No. 3.

ORIGINAL ARTICLES.

RELATION OF NEURALGIA OF THE FIFTH PAIR
TO MENINGITIS.

BY T. B. LESTER, M. D., *Professor of Practice of Medicine in the Kansas
City College of Physicians and Surgeons.*

[Read before the Kansas City District Medical Society, June 5th, 1879.]

I HAVE introduced this subject in order to bring before the Society four cases of Trigeminal Neuralgia, followed by Cerebral Meningitis, that we may discuss the probable causal relation which existed between the one and the other.

It will be remembered that branches from all three divisions of the fifth pair of nerves are distributed to the dura mater, and follow the course of the meningeal arteries, a branch from the first division to the tentorium, and also that the plexuses of nerves found in the pia mater are in part supplied from the trigeminus.

The vaso-motor and trophic disturbances produced in the area of the distribution of the sensory nerves are familiar to all observers, and it is in part through the agency of such disturbances, that I shall seek to explain the super-

vention of meningeal inflammation in the cases of supra-orbital neuralgia which I shall relate.

CASE I. A. R., aged 29, was attacked about noon December 1, 1870, with severe pain over left supra-orbital region, while shucking corn under shelter. His clothes were damp from slight wetting in the morning; pain subsided about sundown; free from fever; slept well that night; appetite slightly impaired, but felt sufficiently well to go about his work next morning.

Pain returned at 10 A. M., two hours sooner than on previous day, and with increased severity. I was consulted and asked to prescribe for him late in the afternoon of that day.

Diagnosed: Supra-orbital neuralgia of malarial origin, from its marked periodicity, together with the fact that he resided in an intensely malarial locality, and had suffered repeated attacks of malarial fever during the preceding summer and autumn. Prescribed 5ss. quinia and gr. i morph. in six doses, one to be given every two hours during the night and morning. Bowels had been evacuated by three compound cathartic pills previous night. Called December 3d, at 2 P. M., to visit the patient (six miles away). Was told he had taken my prescription as directed, beginning at 7 P. M.; that the pain did not entirely subside as on previous day, but with marked remission in the morning, with exacerbation of increasing intensity as noon approached; great fretfulness, impatience and slight delirium. On examination, found every indication of severe suffering, anxious countenance, slight increase of temperature, intolerance of light and noise, pulse 90, and irregular as to rhythm and force, but not intermittent; pupils contracted, frequent grinding of teeth and grasping his head between his hands; would give rational answers to questions, but speak incoherently soon afterward; liver and spleen both enlarged; urine scanty, high-colored and frequently voided; occasional nausea and vomiting.

Prescribed 2 grs. calomel, alternated with 6 grs. quinia and 30 grs. bromide potassium every two hours. Applied

cantharides plaster, 2x4, between shoulders, and left to return next morning.

December 4th, saw the patient at 10 A. M. Found him delirious, almost entirely unconscious; took no notice of questions asked him; refused to swallow what was offered him; teeth clenched, making frequent attempts to get out of bed, alternated with intervals of quiet and apparent stupor, and sweating profusely; pulse 80; soft and intermittent; respiration irregular; pupils dilated; muscular twitching in extremities and face. This condition continued during the following night, with increasing tendency to stupor, and stertorous breathing; and he died comatose, early in forenoon of December 5th. No autopsy. I take it for granted that this patient died of meningitis, resulting in effusion and compression of the brain.

There can be but little doubt that malarial infection was the remote pre-disposing cause, and the wetting and exposure to the chilling winds the direct exciting cause of the attack. But the question which I desire to present for discussion among the members of this Society, is, What relation, if any, did neuralgia of the first branch of the fifth pair of nerves, as it occurred in this case, bear to the subsequent inflammatory action which was set up within the cranium? Be it remembered, that for the first forty-eight hours of this patient's illness his case presented the usual clinical phenomena of supra-orbital neuralgia, without any evidence of cerebral inflammatory complications; that the intermissions were ordinarily well marked, and so complete, after the first paroxysm, that the patient on the second morning went about his work. It is a fact familiar to us all that pain, or, as I might more correctly state it, the irritation of a sensory nerve, of which the pain is an expression, will produce hyperæmia of the locality to which the irritated and pain-stricken nerve is distributed.

We notice that in the early stage of an attack of supra-orbital neuralgia, for instance, there is no dilation of the blood-vessels, no increased heat, or redness, or swelling, but rather a tendency to pallor of the countenance; but

ere long we find all the phenomena of hyperæmia existing to greater or less degree, and most generally in exact proportion to the severity and persistence of the pain. We soon find the temporary contraction of the blood-vessels give way, and dilatation begins, the conjunctiva becomes injected, the temporal artery and other vessels of the affected part dilated and throbbing, under the influence of the pain upon the vaso-motor nerves of affected area. Numerous analogies exist of this vaso-motor disturbance in the neuralgias of other organs. In mastodynia, the mammary gland often becomes swollen and painful, even ending in suppuration.

Of articular neuralgia,¹ Erb says: "Vaso-motor disturbances are very common, and may occasionally lead to false diagnosis; the rapid and not unfrequently regular alternation of congestion, redness, heat on the one hand, and anæmia, pallor and coldness of the skin about the joint on the other, is a characteristic feature of the disease."

Herpes Zoster is a frequent occurrence in intercostal neuralgia, and herpetic eruption, œdema and obstinate ulcerations often follow as results from other forms of neuralgic affections.

There can be no doubt that many cases of neuralgia arise from centric disturbance, in which there is some histological change from mal-nutrition or degeneration in the brain, or its membranes, acting as so strong a pre-disposing cause as to require but slight external irritation to establish the disease in question.

Such a condition we may fairly presume to exist in many of those cases arising from anæmia, malarial infection, mental over-work and anxiety. Yet it is equally clear that there are other cases which give no evidence in their history of any primary central difficulty, but are the result of strong external irritation of the peripheries of the nerves, which, according to the view here taken, not only produces

1 Ziem., Cyclopaedia, Vol. XI, page 192.

hyperæmia of the external tissues to which the nerve is distributed, but by transmission along the nerve to its source in the brain, affects all its branches, and through its distribution to the membranes induces vaso-motor disturbances, which result in hyperæmia and inflammation, with all their usual terminations and consequences.

That such communication of diseased impression may be transmitted to other branches of the same nerve distributed external to the cranium, is susceptible of ocular demonstration. It is a familiar fact that a neuralgia primarily seated in a ramification of the third branch of fifth pair, arising, it may be from a carious tooth, will often affect the first and second branches, giving rise to heat, swelling and redness, the results of hyperæmia, so characteristic of severe and protracted cases of this painful malady.

If this be the case, why may not those branches of the nerves which are distributed to the membranes of the brain set up similar morbid conditions?

CASE II. M. H. D., aged 35, hardware-merchant, of robust constitution; had previously enjoyed good health; gave no indication of malarial infection; had become much exhausted just prior to his illness by hard and continuous labor, both mental and physical; attacked October 12th, 1871, with supra-orbital neuralgia of right side. For the first three days this case presented the usual clinical history of this disease—diurnal exacerbations and intermissions; free from fever; and with a modest appetite. On the fourth day the pain was more intense; he had fever; flushed face, especially marked on affected side; intolerance of light; alternately dilated and contracted pupils; pulse intermittent and irregular, varying from 60 to 100, within a short time; delirious, with lucid intervals; disposition to grind the teeth; sleepless and vigilant; loss of memory, which was the first indication of mental disturbance.

Slept well at night under the influence of 120 grains brom. potass., repeated in two hours; morphia in combination with free doses of quinia, as had been administered for two days previously, having failed to induce sleep.

Fifth day—mental condition somewhat improved, yet not entirely rational; pulse still intermittent; loss of memory remained; pupils dilated; temperature diminished; inclined to stupor; bowels constipated; urine scanty and high-colored.

Prescribed one grain calomel every two hours for twenty-four hours—one hundred and twenty grains brom. pot. at night, which procured a reasonably good night's rest.

Sixth, seventh and eighth days:—Patient continued to improve slowly; tendency to stupor, and dilated pupils, continued; bowels and kidneys acting freely; skin moist and cool, with great loss of muscular power, so as to render him unable to move his limbs without extra exertion, for which I prescribed one-half grain ext. nux vomica every six hours, with nutritious diet. At the end of three weeks the patient was able to sit up without other treatment than the nux vomica three times each day, and nutritious diet. Patient finally recovered, but did not fully regain his wonted strength for three months or more.

CASE III. F. W., druggist, of feeble constitution and slender frame; had suffered much and often, from "nervous headache;" was confined closely to his store, and was heavily taxed with mental labor and anxiety. From the history of his case, as I learned it from Dr. Francis Riéger, his physician, he was attacked with severe supra-orbital pain in February, 1877, for the relief of which he prescribed quinia, morphia and brom. potass., in appropriate doses, which for a time gave him partial relief—so much so, indeed, that on several mornings, contrary to the advice of his physician, he walked to his store, five blocks away.

These remissions and exacerbations of pain continued to recur for four or five days, when symptoms of cerebral trouble began to be manifested. His conversation became incoherent; pulse and respiration irregular; spasmodic muscular twitchings; inequality of pupils—one being dilated while the other was either normal or contracted; grating of teeth; delirium, with increasing tendency to stupor; and in a few days died in profound coma. The opinion held by

some of the medical attendants in this case, that the meningitis was of tubercular origin, cuts no figure in this case, so far as my purpose in reporting it is concerned; for if it were true that there was tuberculization of the membranes of the brain, so much more readily would the vaso-motor disturbance, arising from the trigeminal neuralgia have excited inflammation. The same may be said of the mental and physical exhaustion which marked the history of this case, as well as of Case II.

But be that as it may, the early stage of these cases presented the usual clinical history of supra-orbital neuralgia, such as the practitioner is constantly called to treat, and in all probability, but for the exhausting influences mentioned, and the consequent mal-nutrition, would have terminated in speedy recovery. The question of practical importance in such cases is to determine how much, if any, agency is to be ascribed to the *pain*, in lighting up the morbid action, such as manifested itself in the brain in these cases, and what influence its early palliation or alleviation would probably exert in warding off this untoward result. The ultimate result of every ordinary case should fill us with watchful apprehension, seeing that the early history of these cases furnished no extraordinary symptoms to forewarn us of the formidable complication which followed.

CASE IV. Mrs. E. M., aged 40, had suffered repeated attacks of malarial fever, during the summer and autumn of 1878. During the intervals, but especially during the paroxysms, she was afflicted with an intense supra-orbital pain, with regular diurnal intermissions, which would be temporarily arrested by quinia. It was during one of these paroxysms, of more than ordinary severity, that I was called to see her, during the illness of her usual medical attendant. Was told she had been taking quinia for several days, for the relief of her neuralgia, and from the quantity taken suppose she had been brought under its influence. I found her unconscious, with tonic spasms of the muscles of the extremities, throat and jaws, rendering

it entirely impracticable to administer medicines by the mouth; the conjunctiva of both eyes highly injected, convergent strabismus of left eye, contracted pupils, feeble and irregular pulse, great dyspnœa, which doubtless arose from the spasm of the respiratory muscles, skin cold and clammy, bowels obstinately constipated, not having been moved for several days. The constipation determined me against the use of morphia hypodermically, and in lieu, administered sulph. ether by inhalation, with the happy effect of speedily relaxing the spasms, so that I succeeded in getting the patient to swallow twenty grains of calomel at a single dose, which, with the aid of stimulating enemata, freely moved the bowels next morning.

By the continued inhalation of ether at short intervals, the spasmodic contraction of the muscles concerned in deglutition was restrained, so as to enable the patient to swallow a solution of thirty grains of brom. pot., with two drops of Fowler's solution of arsenic, every two hours during the entire twenty-four hours for the first two days, and afterwards every four hours for one week. The inhalation of ether was discontinued after the second day. On the third day after my first visit, the pupils became enormously dilated, with paresis of the muscles of the extremities, with extreme hyperæsthesia of the nerves of sensation; this latter condition being of short duration, but the loss of motor power continuing for several months, as did the dilated pupils, accompanied by mental imbecility.

This patient ultimately recovered, and has since had no recurrence of the disease. When I first saw this case I diagnosed it anomalous intermittent of the *tetanic* variety, but soon became convinced that malaria was not the sole factor in the causation. The attack occurred during the coldest weather of December, 1878. She was well under the influence of quinia at the time of the supervention of the cerebral symptoms, which had been prescribed for the supra-orbital neuralgia. The sequelæ of the case—mental condition, dilated pupils, and the paresis—all convince me that there existed meningeal inflammation, followed by

effusion of serum or exudation of lymph, which was slowly absorbed. Whether the severe supra-orbital neuralgia had any agency in superinducing this cerebral complication is the question at issue, which I leave you to decide.

Malaria is generally acknowledged to be a fruitful cause of neuralgic affections, especially the supra-orbital variety. Its well-known tendency to disintegrate the red globule of the blood, producing anæmia and pigmentation of the tissues, and among them the membrane of the brain, establishes a condition of mal-nutrition not only highly favorable to the supervention of neuralgic affections, but also inflammatory action.

In cases I. and IV., the above condition may be fairly presumed to have existed. In cases II. and III., equally potent causes existed for the disturbed nutrition, in the mental and physical exhaustion.

The explanation which I offer in these cases as touching the relation which existed between the neuralgia of the fifth nerve and the subsequent central symptoms, is the excessive excitation of the peripheries of this nerve, causing great pain and suffering, which established vaso-motor and trophic disturbances within the cranium in the area of distribution of its branches to the dura mater, tentorium cerebelli, and pia mater, giving rise to hyperæmia and inflammation, in a like manner as we see it manifested in those portions open to our observation.

When we reflect upon the physiological fact, that, as a condition to conscious sensation, impressions must be made and changes wrought in the nervous centres, through the excitation transmitted from the point of irritation, is it strange that the *excessive* excitation, often long-protracted, giving rise to such terrible throes of pain as occurs in trigeminal neuralgia, should set up pathological processes in the nervous central organs? What is said here of this form of neuralgia is equally applicable to other forms, as well as to pain from other causes, the morbid action being located in such portions of the nervous centres as furnish the sensory nerve-supply to the affected locality.

I must confess that this subject is involved in much obscurity, and I introduce it with the hope that, having called your attention to it, your future clinical observations may shed more light upon it.

SIMPLE CONJUNCTIVITIS AND PURULENT OPTHALMIAS.¹

[From Papers read before the Medical Association of the State of Missouri, 1878 and 1879.]

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PART I.—The object of this paper is to give, briefly, reasons for the abandonment of the ordinary astringent collyria, as usually employed in the treatment of simple forms of conjunctivitis, and by implication to induce a more guarded and limited use of such remedies in every and all of the varied forms of acute inflammation to which the conjunctiva is exposed. This latter branch of the subject, too lengthy for elaboration in this short paper, will, at some future time, be discussed in another article.

Before entering into the consideration of the subject proper, I trust that I will be pardoned for here introducing a hasty review of some of the more prominent anatomical and physiological peculiarities of the conjunctiva which have direct bearing on the question, and also a few general reflections on the nature of inflammatory affections, such as we are dealing with, as it will enable me to make certain propositions more clearly and strongly felt.

In the first place, let us remember that the conjunctiva is continuous with the mucous membrane of the nares through

1. Part I. is devoted to the consideration of the nature and treatment of simple conjunctivitis. Part II. contains a paper read at a subsequent meeting, in continuation of the same general subject, upon purulent ophthalmias.

the lachrymal passages; that it receives its arterial and nervous supply mainly from the same sources; the ophthalmic artery supplying through its ethmoidal branches the anterior portion of the schneiderian membrane and lachrymal passages, also by others nourishing the lachrymal gland, eyelids, external and internal muscles of the globe, the conjunctiva, retina and ciliary system; the ophthalmic branch of the tri-facial or fifth pair of nerves anastomosing with the third pair of cranial nerves and the sympathetic, are distributed to the anterior portion of the schneiderian membrane, lachrymal passages and gland, eyelids, conjunctiva, external and internal muscles and tissues of the globe generally, placing most of these in intimate functional union with the ciliary nerves, and through these with the retina and optic nerves.

Being so intimately connected with each other, all of these parts sympathize closely; an irritant to one soon affects the other; the catarrhal inflammation, if it do not simultaneously affect both, will later often involve them in the same morbid process; hence we are prepared to find that catarrhal inflammation, which will in the schneiderian mucous membrane be self-limiting, will also run its regular course in the conjunctiva, provided it be not influenced by constitutional causes (diatheses), or interfered with by other more tangible noxious mishaps.

If we more closely examine the conjunctiva, we find this very delicately constructed mucous membrane thickest on the eye-lids and studded with closely packed minute papillary elevations similar to those of the skin; the ocular or sclerotical portion less tough and thick, with no papillæ, and where it reaches the cornea reduced simply to its most superficial epithelial layer. Everywhere richly supplied with nerves, it is acutely sensitive, but in the corneal portion the nerves reach to the very surface by their terminal ends, which lie exposed; hence its exquisite sensitiveness to the simplest agents; distilled water, dropped upon it, momentarily produces a sense of stinging and roughness, and even a puff of cold air is disagreeably felt. This extreme deli-

cacy and sensitiveness of the organ, which constitutes its protection and safeguard against a variety of injurious influences, may become under certain circumstances, the prolific source of not only many inflammatory attacks, but the cause, also, of their aggravation and persistence. The unavoidable irritation arising from the performance of the functions of the organ during conjunctivitis, adds to the trouble; but the majority of prolonged and serious cases result from the ill-advised application of the universally employed, so-called "mild collyria" (?). A glance at the physiological and pathological conditions of the eye teaches us that, although light is the normal stimulus of the retina, yet an undue amount of it entering the eye, especially if too prolonged, and particularly if derived from artificial sources, is capable of producing irritation, congestion and inflammation of the conjunctiva and deeper parts.

The complicated muscular effort required to accommodate the eye for short distances (reading, writing, sewing, etc.), involves the simultaneous action of muscles, both within and on the outside of the globe; and since muscular contraction or activity of any organ is invariably attended by increased flow of blood to it, there necessarily follows an increased blood-supply to both the retina and conjunctiva at such times. An abuse of the function under consideration may and does induce conjunctivitis, and other deeper-seated inflammations; even the normal exercise of the function during such inflammations will surely increase the trouble.

Let us not forget that the conjunctiva is bathed with a fluid (the tears) which, besides containing something approaching one per cent. of chloride of sodium, presents traces of other salts, and that this secretion is vastly increased at the shortest notice, and notably during inflammations of the conjunctiva. Again, that the membrane itself secretes another more consistent fluid called mucus, in which we find a few cells, the mucus corpuscles; and that this secretion during attacks of inflammation is also greatly

increased in quantity and viscosity, as well as in the number of cells found in it, which last then take the name of pus cells. Soon we will see what an important part these physiologically protective and bland fluids play in defending this much-abused organ from the rough usage it has so long received at the hands of well-intentioned medical men, and from the brutal attacks of quacks and empirics.

If, after having made these remarks on the nature and causes of simple conjunctivitis, it be granted (as it must be) that what I have said is correct, then the appropriate treatment of the affection will naturally follow.

The causes of simple conjunctival inflammation are exposure to cold, heat or dampness, also irritants of whatever kind, whether mechanical, chemical or functional (over use or abuse); finally inflammations which reach the conjunctiva by extension from the skin or present themselves as symptoms or complications of exanthematous disease. I now unhesitatingly and most positively assert, that simple conjunctivitis, at whatever period of life, when due to any of the above-named causes (except, perhaps, those brought on by functional abuse), and occurring in an otherwise healthy individual, is as essentially a self-limiting disease as measles, or a common cold in the head in conjunction with both of which it often presents itself; moreover, that it will as certainly run its course in a given time as either, provided it be undisturbed by accidental irritating causes, bad hygiene, or, what is worse than all, meddling medication. The very men who would condemn as absurd the proposition to pass an astringent solution through the nasal cavity for a common cold in the head (a self-limiting, catarrhal inflammation of that mucous membrane which will get well of itself if left alone, in from two to fifteen days), do not hesitate to drop the same solution on the vastly more sensitive conjunctiva, under precisely the same circumstances, and that, too, in spite of the pain and irritation produced by their medication.

To resume, there are other cases which we must differen-

tiate from those above mentioned. In these last the conjunctivitis originates as before, and would be simple were it not for the fact of its implantation in a system controlled by vicious constitutional predisposition to certain pathological changes, commonly known as diatheses; these will almost certainly run a different course, and they require additional treatment; as, for instance, scrofulous patients suffering from conjunctivitis where the tendency is to become chronic, granulation of the lids, and ulcers of the cornea complicating the case. It is in these cases that a thorough knowledge of therapeutics and the experience of the general practitioner is needed; but, unfortunately, it is just here where the ordinary specialist is found wanting. Ophthalmologists, as well as other specialists, are too apt, as a rule, to regard as purely local affections the diseases which they profess to treat, forgetting that every organ of the body forms but an integral and inseparable part of the complex whole before them, and, consequently, that every part is inevitably influenced by the general condition of the entire organism; good health, want of vigor, or tendency to peculiar forms of disease invariably dominating local affections. The above, however, is but the natural result of to-day's fashion: many men imagine that immediately after graduating, and without experience or previous training in general medicine, they can study a specialty for a few months, or perhaps a year or two, and become competent ophthalmologists, aurists, etc. A greater fallacy never existed, and all such men, be they talented or not, will surely fall far below the excellency they might otherwise have aspired to; indeed, without this previous experience and training, one cannot conceive how sufficient knowledge and breadth of views can be obtained, and in the absence of these pre-requisites the specialist must inevitably drift into the empiric.

A very large proportion, nay, the majority of the cases of conjunctivitis which fall under the care of the medical man, require constitutional treatment, which, if neglected, will drag on for months and years, going first from one physician

to another until blindness or serious impairment of vision results. It is especially these cases, which, having been subjected by others to treatment with astringent collyria for even short periods only, that I have found most troublesome to relieve; the irritants have invariably caused much congestion and cell proliferation (commencing hypertrophy), which time and proper treatment can alone correct; on the other hand, when treated as I am about to suggest, it is the exception for them to reach this point, always providing the case is seen at its inception; but such cases do last longer than the first named.

Permit me to first call your attention to the method which I pursue in the treatment of simple conjunctivitis in the healthy individual; I will then speak of those influenced by the strumous, scrofulous or other diatheses, including all not in a normal condition of healthfulness.

Regarding simple conjunctivitis in a healthy individual as a self-limiting disease, I am exceedingly careful to do nothing which might interfere with the sure and beneficent workings of nature, and using the lights obtained from a careful consideration of the anatomical and physiological conditions of the organ, I in the first place always insist upon the observance of the most perfectly regulated hygiene that can be deduced from those teachings: Hence, I begin by giving such directions as will most effectually shield the organ from any known source of irritation; thus, I absolutely forbid my patients using either eye for purposes requiring near vision (reading, writing or sewing, etc.), I warn them against exposure to bright lights (especially artificial ones), and remind them that the direct heat of fires will do harm; all of these conditions invite blood to the parts. While I require the above, I still encourage out-door exercise, giving, if necessary, the lightest plano-blue glass or open shade, which will enable them to bear the light and yet not unnecessarily shut out too much of either element so necessary to the well-being of the organ (fresh air and light.) Those pernicious contrivances known as goggles are never allowed; they serve only to imprison

foul air and moisture around the eye, and when removed leave the parts in a similar condition to that in which a man would be on coming suddenly out of a prolonged, impure vapor bath; injurious results must necessarily follow; the slight protection that they may afford against dust is more than counterbalanced by the positive injury they do. Close or very dark rooms do harm; our patients need light, fresh air and exercise to be well; but they should avoid the dampness of the night air. Dust is to be avoided. Smoke is irritating to the conjunctiva; however, the use of tobacco in the open air will do no harm if ordinary prudence be exercised. Strong winds blowing directly against the face will irritate; but a fresh, bracing atmosphere will give tone to the part. Stooping or violent efforts are forbidden, as they tend to produce congestion about the head and eyes.

No restriction is placed upon the diet of the patient further than those required by the ordinary rules of good hygiene. Stimulants are forbidden unless the person has always been in the habit of using them; I then reduce the quantity ordinarily taken. Purgation is not needed and may do harm by relaxing the tone of the system, but constipation however should be relieved. Cleanliness is enjoined, but useless washing and touching of the parts are discouraged. Should the lids stick together of mornings, benzoated cerate applied to the lashes at bed-time will correct it. I sometimes add tannin to the cerate, but cannot say that it has any effect; it certainly does no harm. I now come to the local medication.

Long-continued moisture irritates the delicate skin of the eyelids, hence I am careful to discontinue or relax in the application of any solution which may have tended to induce such a condition. I frequently order the application of tea leaves to the parts at bed-time; they combine many useful qualities, retaining moisture longer than wet cloths, and the large quantity of tannin they contain forms a good and simple astringent to the part. During the day I order a solution about as follows: *Acet. plumbi*, ʒss; *aq. ex. opii*,

5ij ; aquæ, ʒvj ; it is to be applied to the skin of the eyelids with the moistened tips of the fingers and then allowed to dry ; or strips of cloth moistened with the same solution are applied at intervals ; cold and astringency are thus obtained, and the opium perhaps aids in controlling the circulation, by producing contraction of the involuntary circular muscular fibres of the capillaries. Apparently, this application has given me satisfactory results, the chemical incompatibility of the constituents notwithstanding, and I rely principally upon it.

I have occasionally used the bromide of potassium in combination with the fluid extract of ergot internally, half drachm doses of each, and I believe this has been useful in controlling the inflammation. Leeches, when the irritation is very great at the inception, will do good if applied to the temporal region, but they could not be repeated. Of the other local remedies I have little to say ; some are useless, but most of them injurious. Counter-irritation is painful and has no effect that I can see ; all astringent collyria act as irritants, and are, therefore, injurious ; atropine especially, by admitting too much light to the retina, may do harm, but in doubtful cases of diagnosis, where the practitioner cannot determine in the first few hours whether a given case is one of incipient iritis or conjunctivitis, its use is admissible ; this difficulty is not uncommon, and the use of atropine will place us on the safe side. To all solutions of atropine I add one half grain of chloride of sodium to the ounce. It makes the instillation bland and preserves it from decomposition.

In the strumous and scrofulous, and persons recently recovered from disease, I take additional precautions ; for instance, they cannot bear as much light or exposure as others ; they need more rest, etc. I am careful to regulate all of this, but place my greatest reliance on a tonic which I never fail to give and rarely vary : It is the tr. ferri chloridi, than which a more sure, prompt, or powerful tonic does not exist. I lay some stress on the manner in which it is given, (dose and time of administration) ; and I believe with reason.

I always give an adult one half a drachm ; a person under thirteen years of age takes one quarter of a drachm, and an infant of eighteen months, one tenth of a drachm. For convenience I use sufficient syrup to make one teaspoonful the dose. The time of administration is one or two hours after meals, the very moment when digestion might begin to flag and then be assisted by the hydrochloric acid in the preparation ; sufficient time has then also elapsed for the modification of the tannic acid so largely contained in many common articles of diet ; tannate of iron being the poorest form of iron for tonic purposes. In this way I present for ready absorption, the iron in nearly as similar a form as possible to that which it would assume after the action of the gastric juice upon the metal. As regards the danger to the teeth from the use of this acid preparation, a tube to take the remedy properly diluted, and a tooth-brush with a solution of sodium bi-carbonate, ends the matter.

I know full well that at the threshold of a discussion on this subject, it will be urged against me by the vast majority of the profession, that they have for *years* made use of astringent collyria in the treatment of simple conjunctivitis, and that they have had good success, notwithstanding my positive condemnation of such treatment. All that I have to say in answer to this is, gentlemen, you are mistaken ; your cases would have done better without it ; your patients got well in spite of your medication, and the reason why you have done less injury than should have resulted from your treatment, will readily be appreciated if you, for a moment, contemplate this picture. When an eye is suffering from conjunctivitis, a plentiful secretion of tears flows from it ; the ordinary mucus secretion is increased in quantity, viscosity, and in the number of contained pus-cells ; now, on pulling the lids apart to drop in a solution, the tears flow in greater abundance, thus protecting the tissues by interposing a stratum of flowing liquid, and at the same time excessively diluting the astringent ; but, should the collyrium have contained acetate of lead or nitrate of silver, (two remedies enjoying more reputation

than any others in this affection), they are not only diluted, but almost instantaneously neutralized by the mucus and salt in the tears ; thus beneficent nature provides the organ with a safeguard against such measures and jugulates the would-be healer.

Had you succeeded to the extent of your wishes, not only the delicate membrane of the lids and globe would have been bathed in the astringent, but the cornea, with its exquisitely sensitive bared nerve terminations would have been treated to the same uncalled for application, for it was neither inflamed, nor had it vessels that could be acted upon by the astringent. Even were I wrong, the case would not justify the mode of applying the remedies, and means would have to be devised which would exempt the unaffected cornea from the injurious contact of the astringents used.

If I could only urge in favor of the method which I here advocate, *its freedom* from pain, while giving as good results as the treatment by astringent collyria, none should hesitate to adopt it ; but when the great disadvantages of this last remains of empiricism are made evident, all must certainly condemn it.

At some future time it is my purpose to say something in regard to the treatment of other forms of conjunctivitis, the phlyctenular, purulent, trachomatous, granular and others ; suffice it for me now, to remark, in conclusion, that with perhaps the exception of granular lids, the same principles as above apply.

PART II.—I shall now discuss the pathology and treatment of the various non-specific pus-secreting conjunctival inflammations, known as catarrhal conjunctivitis, or ophthalmia, purulent ophthalmia, gonorrhœal ophthalmia, leucorrhœal or blennorrhœal ophthalmia, ophthalmia neonatorum, Egyptian ophthalmia and military ophthalmia, all of which must be regarded as one and the same pathological condition. As regards the membranous conjunctivitis and trachoma of Stellwag and some others, I can see no good reason for making separate diseases of them. The

first is but an accidental symptom which may be developed in the course of any case of conjunctivitis, and the last is simply the most common result of severe forms of conjunctival inflammation.

True diphtheritic conjunctivitis, although attended with a purulent discharge, is too evidently a specific disease to be classed or confounded with those in question.

As clearer and more forcible conclusions can be reached, if I be permitted to recall certain physiological, histological and pathological facts directly involved in the subject to be discussed, I will take the liberty of here introducing them.

Physiologically, mucous membranes must be regarded as internal skins; they all are directly continuous with the skin, and like it, are absorbent and secreting surfaces; in addition to these attributes, the conjunctiva in common with the skin, is endowed with sensation, and covers the globe and eye-lids as an integument would.

Histologically, the resemblance between the conjunctiva and skin is still greater. Both membranes present externally epithelial cells several layers deep, and these cover a more or less dense connective tissue, in which are lodged the nerves and blood-vessels in either case, while the caruncula, like the skin, bears hairs and sebaceous glands, and the tarsal conjunctiva vascular and nervous papillary elevations. The absence of regular sweat-glands from the conjunctiva is more apparent than real, since the lachrymal gland bathes it with a saline fluid not unlike the product of the former.

Pathologically, we observe that the skin and conjunctiva are often similarly and simultaneously affected, as for example in the exanthemata. All of us are familiar with the inflammations of the conjunctiva in measles and scarlet fever; indeed redness of this mucous membrane constitutes one of the most valuable early symptoms of measles prior to the eruption of the cutaneous rash; in variola not only does the conjunctiva inflame, but pustules not infrequently find location on it. Erysipelas constantly extends from the facial integument to the conjunctiva.

The microscopical appearances of inflamed integument or conjunctiva are to all intents and purposes the same. We find cell proliferation in the connective tissue elements and epithelial layers of both, and it can be easily shown that the pus cells which are present in all severe cases of conjunctival inflammations, find a counterpart in the skin, even when they are apparently absent. The pus cells which are found in the secretion coming from a case of purulent ophthalmia probably arise from three different sources; good authority for each opinion exists. I believe that the majority are young and undeveloped epithelial cells of the conjunctiva; proliferating connective tissue corpuscles most probably help to augment the number, whilst white blood corpuscles and their descendents migrated from the vessels of the part, contribute no small proportion of these elements.

The same pathological process goes on in the inflamed skin, whether or not the surface be abraded, (deprived of the superficial horny layer of its epithelium). In the latter condition, as in eczema, after blisters, scalding, &c., the great similarity and resemblance to inflammations of the tarsal conjunctiva is striking. But in cases where the horny layer persists and still continues to protect the deeper parts, the process is not so evident, yet it is the same; proliferation of the same cells as before takes place, they accumulate in the rete mucosum or deeper layers of the epidermis, and finally push off or cause the exfoliation of the more superficial or harder ones whose vitality has already been impaired; these come away in larger or smaller masses; the process is known as the stage of desquamation; measles, scarlet fever and erysipelas are familiar examples.

Hence, we are forced to the conclusion that we have in the conjunctiva nothing but a modified skin, and due allowances being made for its location, special function, greater sensitiveness and delicacy of structure, that there should be a close similarity, if not identity, in the therapeutical principles which guide us in the treatment of like pathological conditions in each: but the astounding fact is here

witnessed, that while it is deemed important not to irritate an inflamed integument, but rather to protect and even make soothing applications to the comparatively coarse skin during inflammation, (witness the treatment of catarrhal affections of the skin, eczema, and of erysipelas, also the ointments, &c., to scalds and blisters); we are taught that furious and repeated attacks with irritating astringents, caustics and knives are absolutely indispensable for the relief of a similar pathological condition, when it happens to involve the infinitely more delicate and sensitive kindred membrane, the conjunctiva. Every text-book is flooded with such advice, and we stand aghast and wonder-stricken that so many eyes come through the ordeal, even in the dilapidated condition that we so frequently see them. Certainly, reason does not bear us out in such treatment, nor will the facts, when properly viewed and sifted, as I shall in a few moments conclusively show.

The causes which give rise to purulent ophthalmia are the same as those which produce simple conjunctivitis, which itself may at any time become purulent; the inflammation in every case being a non-specific one, whatever may have been the nature of the irritant which produced it. Atmospheric changes, irritants, whether chemical, mechanical, organic or functional, are found capable of producing purulent ophthalmia, and all attempts to distinguish cases produced by one or another of these causes have proved futile. Violent purulent conjunctivitis of catarrhal origin, and gonorrhœal ophthalmia, are absolutely identical in every respect as far as we are able to judge to-day. Experiments to determine this point have been made, and I remember two of interest which I heard related by an eminent syphilographer during my studies in Paris, in 1858. Two enthusiastic students, following the course of this physician, decided to determine for themselves the question of identity, and about the same time made the following experiments. One of them, a person who was perfectly free from any trace of gonorrhœa, injected into his urethra an irritating solution; (I believe nitrate of silver); in a very short

time after, he had the satisfaction of finding himself with a purulent discharge from his urethra (simple catarrhal urethritis) which had all of the appearances of gonorrhœal matter. (He later suffered from stricture). Not satisfied with appearances, he on his own account, proceeded to test the inoculability of his own discharge, on one of the opposite sex, being careful to select a subject known to be free from gonorrhœa. Later he reported what he had done, and stated that the inoculation had been perfectly successful, and that he moreover, had traced the same affection from the last source, to a third individual of his own sex. The second was a student connected with a lying-in and children's hospital. He chose an infant about four weeks old that he himself had delivered; the parent was free from any gonorrhœal discharge, and the infant had just caught cold and developed a catarrhal conjunctivitis, of the purulent form. He introduced into his own urethra pus obtained from the above source, and on the second day noticed the commencement of a discharge which soon proved to be a genuine gonorrhœa, for he experimented as did his friend, and obtained similar results.

Hence, we have, in all of those affections which I have classed as pus-secreting conjunctival inflammations, a variety of exciting causes in common, and like symptoms attending them; again, none of those exciting causes invariably produce the same results; and finally, we see that simple chemical irritants are occasionally as capable of giving rise to violent purulent ophthalmia as gonorrhœa itself. We certainly, then, are justified in the conclusion, that we are dealing simply with a non-specific inflammation of the conjunctiva, and that in the majority of cases at least, the special form that it will assume is rather determined by something independent of the original exciting cause. What that something is, should first be determined, ere the appropriate treatment can be decided upon.

Inoculation of purulent matter from certain sources, (gonorrhœal and purulent ophthalmia) we know is almost certain to be followed by the development of purulent conjunctiv-

itis; there are, however, exceptions to this occasionally; but pus from the above-named source is undoubtedly the surest excitant of such inflammation, not because there is any specific character about it, but because the transplanted germ, (the pus cell), is the progeny of rapidly proliferating protoplasm, and it inherits and carries with it that impulse to the fresh surface on which it is engrafted; just as seeds from strong plants: they will grow better than those obtained from indifferent and weak ones. The correctness of this view is substantiated by the fact, that when gonorrhœa, gonorrhœal ophthalmia or purulent conjunctivitis have become chronic, they are very much less or not at all inoculable. Age, occupation, season and climate, degree of irritation, epidemic influences, pre-existing conjunctival inflammations, &c., all exert a certain influence; but according to my experience, there is no more general or potent predisposing cause to the determination of a purulent form of conjunctivitis from the ordinary exciting causes than a pre-existing constitutional condition of the individual whose eye is the recipient of the irritation. Persons in deteriorated health, whether from vitiated constitutional tendencies called diatheses, or those still suffering from the effects of serious illness; the badly nourished, feeble and overworked, but more especially those laboring under the effects of long-continued malarial poisonings, seem more prone to develop purulent ophthalmia from trivial exciting causes than any others.

If catarrhal conjunctivitis be a self-limiting inflammation, as I have heretofore contended it is, this aggravated form must also be of the same character. Three to six weeks may suffice for it to run its course, say some authors. I have ordinarily seen it last about that time. Being a very serious affection, many eyes are lost in that period; a large proportion will naturally merge into chronicity (granular conjunctivitis), or, being complicated with corneal accidents, will drag on for months and even years. But I am firmly convinced, that of the cases terminating unfavorably, at least one-half, if not more, are directly

chargeable to the ordinary medication of the practitioner and ophthalmologist, or the abominable tamperings of quacks.

A brief consideration of the most approved treatment current, with criticisms thereof, will enable me to substantiate the above assertion, and, independently of any individual experience or theory, better prepare for the acceptance of other measures more in consonance with the pathology and location of the disease. Leaving the more ordinary measures employed for the relief of purulent conjunctivitis to be noticed when I come to consider the method that I pursue, I will at once refer to the two which I consider most objectionable; namely, the use of astringents and caustics: These form the chief, nay, most important basis of the treatment advised in all of the best known text-books. The remedy which enjoys vastly more reputation than any other, is the nitrate of silver. It is used in substance, the mitigated stick, or in solution. Some use the remedy from the inception of the inflammation, holding that the sooner it is applied the better. Others condemn its use before the inflammatory action has commenced to subside. These last commence with antiphlogistics.

I will not discuss in this paper the propriety of applications of nitrate of silver in the treatment of granular conjunctivitis. That hypertrophic condition of the conjunctiva is one of the possible, nay, most frequent results of purulent conjunctivitis, and, as such, will probably be the subject of a future paper.

L. de Wecker, in his last work on Ophthalmology,¹ writes as follows: "It can be laid down as a rule, that in the majority of acute cases of purulent ophthalmia, cauterizations should be made every day in the beginning of the disease, then, as the affection progresses and the inflammatory symptoms subside, the cauterizations should be less frequent, etc." He uses a mitigated stick of nitrate of silver or strong solution of the pure salt.

¹ *Traité Complet D'Ophthalmologie*, par L. de Wecker et Ed. Landolt. Paris, 1879.

Galezowski¹ says that, in purulent ophthalmia in adults, "we must cauterize the conjunctiva with the mitigated stick of nitrate of silver," and that "the cauterization must be repeated every second day, daily, or twice a day, according to the toleration of the remedy, or the abundance of the secretion." In blennorrhagic or leucorrhœal ophthalmia, he says: "It is all important from the very beginning to act with the utmost energy, as is recommended by Ricord. The conjunctiva must be cauterized daily with the mitigated stick," etc.

Scølberg Wells² uses astringents and nitrate of silver solutions, but says that "at the commencement of the disease, while the discharge is still but moderate in quantity, we must be careful not to employ too strong a caustic," etc. That is, virtually, as long as the inflammation is violent or threatening, or the parts from too great sensitiveness cannot be forced to tolerate any additional irritation, we must not attempt to use such remedies. This, indeed, is a precaution advised by many authors who have undoubtedly been forced in the right direction by unfavorable results.

Stellwag³ advises, that "In blennorrhœa of a milder form, with an inflammatory product which has a decided mucous character, we do well to confine ourselves, during the increase of the inflammatory action, and when it is at its height, to a strict antiphlogistic treatment. Astringents and caustics, and all irritants are not indicated under such circumstances, and according to very large experience, are harmful rather than useful."

Schweigger⁴ says that "The treatment of an eye attacked with blennorrhœa must at first be antiphlogistic," etc; that, "in general it is advisable not to be too hasty in

1 *Traité des Maladies Des Yeux*, par X. Galezowski. Paris, 1875.

2 *A Treatise on The Diseases of the Eye*, by J. Scølberg Wells. Philadelphia, 1869.

3 *Treatise on The Diseases of the Eye*, by Carl Stellwag Von Carion. New York, 1868.

4 *Handbook of Ophthalmology*, by Prof. C. Schweigger. Philadelphia, 1878.

beginning the use of caustics;" that, "so long as (the secretion) is still serous, with only an occasional flake of pus, caustics must be used very carefully; but when the secretion becomes decidedly purulent, they may be used more boldly;" and that "The local treatment of the conjunctiva is first indicated when the disease has evidently passed into a regressive stadium," which, in a nut-shell, is really the principle that the majority lay down; that is, "in plain English," as long as you stand in fear of the effects of the inflammation, and while it is on the increase, you had better keep your hands off; but, as soon as the inflammatory action has begun to subside and you regain sufficient courage, then attack it vigorously with caustics. By what principle in therapeutics this curious course can be justified, I am at a loss to conceive. I always believe in letting a dangerous enemy depart in peace when he is disposed to do so, and I certainly could not be induced to traumatise an inflamed part, when the pathological process shows evident signs of decline. We certainly do not treat the skin in the manner indicated. If the inflammation threatens to become or is already chronic, the condition is known as granular conjunctivitis, and requires astringents, etc. This stage, however, is not waited for, as has already been shown by the quotations made.

The foregoing plan of treatment, with unimportant modifications, is the one in general use to-day; the rationale of the method is, however, not the same with all those who employ it. De Wecker,¹ with some others, claims that it acts as follows: "The conjunctiva during the purulent inflammation is very much congested and gorged with blood; its vessels are dilated, and the circulation is then retarded. Cauterization momentarily increases the congestion, but the serous transudation brought on by the elimination of the eschar and the direct irritation which the cauterization has produced on the vessels, will induce a contraction of their walls and immediately cause the acceleration in the circulation with a consequent dimin

1 Loc. Cit.

ished diapedesis." This, deprived of all circumlocution, means, in plain language, that the inflamed part is re-excited and momentarily started afresh with an additional impetus.

Does it not at once strike every one that all of this is the very most literal and terribly earnest enforcement of the doctrine, "*Similia Similibus Curantur*," one which assuredly would gladden the heart of the most enthusiastic homœopath in the land, if it could be proven correct. Such an explanation, according to my understanding of pathology, cannot be admitted. The author truly depicts the condition of the inflamed part (gorged and dilated vessels with a retarded circulation), and if we perhaps except the obscure allusion to the "serous transudation brought on by the elimination of the eschar," he, as far as he goes, correctly represents the result of the application of the caustic or irritant, namely, momentary contraction of the walls of the vessels and acceleration of the circulation. But he has only repeated what we already know takes place in any inflammation, and undoubtedly the application of a new and violent irritant or traumatism can only end in a still more pronounced gorged and dilated condition of the vessels, and retardation of the circulation. Hence, I cannot conceive how any beneficial results can follow this application of a violent irritant to the delicate conjunctiva, already in imminent danger from the presence of a similar inflammation. The caustic destroys a portion of the membrane. This injury, we know must necessarily produce inflammation, and nothing else but inflammation can be the result of it. Now unless, as said before, we admit Hahnemann's doctrine, carried to its most legitimate extreme, no argument or so-called explanation can destroy the simple proposition here made.

But Stellwag,¹ and some others, takes a different view of the *rationale* of cauterizations, for he observes: "In true pyorrhœa however, where the decomposing power of the inflammatory product comes into consideration," etc., he

1 Loc. Cit.

then uses nitrate of silver more vigorously, and apparently sooner than is customary with him in other cases. Now, what are we to understand by "decomposing power of the inflammatory product?" Evidently, only one of two things can be meant: The author either implies that the secretion from a case of purulent ophthalmia can do injury to the conjunctiva by becoming chemically decomposed, and then act powerfully on it, or he alludes to the same idea referred to by de Wecker,¹ in the following: "Formerly caustics and concentrated solutions of nitrate of silver were employed on the principle that it was necessary to transform the original or inoculated disease into a (simple) traumatic affection, etc." If the former opinion be the one intended, it will scarcely bear scrutiny, for we know that the pus cell, when it reaches the surface of the conjunctiva, is a living mass of protoplasm, and there is not the least probability that it can undergo putrefactive transformation before it could be removed (every hour or two if need be), by simple and comparatively unirritating cleansings, which, if necessary, might easily be made antiseptic. But if the author implies that the pus cells, in a case of purulent ophthalmia, possess a specific noxious vital power which they exercise injuriously on the conjunctiva, I believe his position can equally be proven not tenable. The question would stand thus: Have the pus cells any injurious specific attributes? If they have, can we practically destroy them by the use of caustics, as usually applied? In the first place, I will remark that there is nothing that goes to show that these cells do harm to the conjunctiva; all of the pernicious results of purulent conjunctivitis are evidently nothing more than what should be expected from such a violent inflammatory condition affecting so delicate a structure, and if we take into consideration the unjustifiable injuries which are habitually inflicted on the part at such times by the physician and ophthalmologist, the only surprise is that any eye ever escapes destruction; indeed, were it not that nature in this emergency triumphs at last by providing

1 Loc. Cit.

superior safeguards, no eye would probably survive the ordeal. Purulent secretions covering excoriated, ulcerated, or inflamed parts, far from being irritating, are actually designed and supplied by nature as bland protectors to the inflamed underlying tissues, and the too frequent or complete removal of such protecting fluids is to-day ordinarily recognized as injurious; blistered surfaces, healing ulcers, etc., are good examples of this. Yet, for some unknown reason, the unfortunate conjunctiva is denied the advantage of this correct principle.

For the sake of argument, let us for a moment grant that a noxious power does reside in the pus cells. Is it possible to eradicate them from the part, as proposed? When considering the question of pathological origin of pus cells, it was stated that they undoubtedly came from the epithelial layer, connective tissue and blood-vessels of the conjunctiva; the constituent cells or protoplasm of each of these parts proliferating, the young cells migrate towards the surface to become pus corpuscles. Now, if these cells possess any peculiar or specific destructive power, they most probably are endowed with it at their birth; and if so, to completely destroy all of them, and consequently the power which they possess and are able to propagate, we would be compelled to eradicate the entire conjunctiva, which is certainly not even attempted; indeed, we are warned not to cauterize too deeply for fear of accidents.

To prove that the use of astringents and cauterizations are injurious, we need only examine what some of the most prominent advocates of their use have to say of their experience with them: Stellwag,¹ for instance, disapproves of the use of either, in the inception of purulent ophthalmia. He prefers antiphlogistics. Thus, he says: "Astringents, caustics and all irritants are not indicated under such circumstances, and, according to a very large experience, are harmful rather than useful." And again: "The instillation of even weak solutions of nitrate of silver is not perfectly free from danger. It must be confessed that its

1 Loc. Cit.

irritative effect in a decidedly sthenic character of inflammation, is disadvantageous, and may become destructive. Considering these facts, some have entirely given up the use of solutions of nitrate of silver as eye drops. Instead of using them, they pencil the suppurating conjunctiva once or twice daily with the nitrate of silver in substance." Further on he says: "A number of exhaustive and unprejudiced experiments have shown that, in a case of purulent conjunctivitis having a sthenic character, no preference can be given to the use of the solid stick or penciling over that of weak solutions dropped in the eye. Indeed, the latter are to be preferred. Nitrate of silver, excellent as its action may be as a caustic astringent, interferes with the energetic combatting of the inflammatory process, on account of its irritative effect. It is, therefore, in a certain sense, to be considered an injurious agent. The use of nitrate of silver in any form is the more dangerous, the more severe the inflammation." Can one conceive how, after the expression of such opinions, the same individual can consistently advise the use of such remedial measures?

Schweigger,¹ on this same subject, writes: "The treatment of an eye attacked with blennorrhœa must at first be antiphlogistic, etc., etc. In general it is advisable not to be too hasty in beginning the use of caustics. If, in a recent case of blennorrhœa, one is doubtful whether the use of caustics is indicated, it is better to wait than to cauterize too early, since a premature use of caustics may be followed by the most serious consequences. For instance, by such mistaken treatment, what would have been a mild process, may be excited to an inflammatory condition, which it would never have reached under a simple antiphlogistic treatment; and just these inflammatory conditions, which have been incited by too early cauterization, show a great inclination to associate themselves with destructive corneal processes."

De Wecker² uses the mitigated stick of nitrate of silver

¹ Loc. Cit.

² Loc. Cit.

in the beginning of the disease, under the following circumstances: "At the beginning of the disease, if there be the least fear that the purulent conjunctivitis may be transformed into a diphtheritic conjunctivitis, it is better to wait—it is only after the mucous membrane has become soft, congested and well gorged with blood, that the caustic can be applied without fear of accidents. In the new-born, this precaution is less necessary, because they are never subjects of true diphtheritic conjunctivitis; there can only be in such cases ephemeral diphtheritic complications, which disappear easily, even after cauterization." What are we to say of the above apparent contradiction: "New-born babes are never subjects of true diphtheritis," and in the next sentence, "there can only be ephemeral diphtheritic complications" in their case? Surely he has, as several others have done, confounded the non-specific fibrinous inflammatory effusion caused by his cauterizations with the specific membrane which may be formed in diphtheria, or else he has used the term "diphtheritic" loosely. So he, like the others, does not use his caustic until he feels reasonably assured that he will not excite an uncontrollable inflammation by his applications; but he takes an additional precaution, for he only cauterizes the palpebral mucous membrane and that of the cul-de-sac, averring that "the conjunctiva of the bulb is only secondarily affected in purulent conjunctivitis"—a statement which has not even the semblance of probability about it; for, apart from the early inflammatory symptoms about the conjunctiva of the globe, we all know that it is the scleral conjunctiva which first receives the irritants which cause the disease, as cold, heat, dust, chemicals and inoculations; hence, if we had any reason to suspect that one part was at first singly affected, the above facts would point rather to the bulbar portion. But a practical deduction from his observation is useful; for it goes to prove that better success, or rather fewer accidents follow the application of caustics to the palpebral conjunctiva and cul-de-sac, than when it is applied to the scleral portion also. The

explanation of this is simple: The parts which he cauterizes are not near so delicate or sensitive as the bulbar conjunctiva, hence the reaction is not so great.

It then follows, from what precedes, that there is no specific character in the pus of purulent conjunctivitis; and hence, there can be no necessity to attempt to modify it; moreover, that even were it specific, we could not reach it in the manner proposed. Again, since astringents and caustics act as irritants, we fail to find in the pathological condition any indication for their use; for, leaving out the question of their utility in the chronic stage (granular conjunctivitis, which is not being discussed), there certainly is no indication for the employment of irritants at the inception of the inflammation, or while it is on the increase (many authors already condemning such practice as injurious): and when resolution sets in, why should we re-excite the inflammatory action which nature has just started to remove?

But it may still be objected: why is it that the use of astringents and caustics does not more frequently end in the loss of the eye? My answer, in the first place is, that more eyes are lost or injured by these measures than we now have any idea of; second, that more would be destroyed did not nature interfere in behalf of the ill-used organ and protect it, probably to even a greater extent than we can now realize. Some of these protective measures are perfectly evident, as I have already shown in Part I., page 226; and all that is there advanced applies here even with greater force; for in purulent ophthalmia the quantity of pus which almost inevitably remains after the cleansings, especially by attendants, serves to protect the organ very thoroughly. Toleration to the effects of astringents can most certainly be established in many cases, for the irritant causes a thickening of the epithelial layer of cells, which then more completely protect the delicate nerves, thus depriving the irritant of the greater part of its force. But you must not deceive yourselves; your astringents do not reach the conjunctiva quite as frequently as you pre-

scribe them; the patients are negligent, the attendants are careless, and as the applications give pain, there is reason for letting off the sufferer occasionally; then, the dread of the application causes most persons to so forcibly close the eyelids, that even the skilled ophthalmologist has often the greatest difficulty in successfully getting in a drop or two of the solution. When these facts are taken into consideration, it is apparent that the astringent reaches the conjunctiva rather as the exception than as the rule; hence the impunity with which they may ordinarily be prescribed. When caustics are directly applied, only some of the foregoing modifiers operate in favor of the patient; but then, as nature is called upon to do still more, she brings forth other of her exhaustless and wonderful resources, coming bravely to the rescue of the endangered part. Let us examine what takes place after the first cauterization. If it has been properly made, the more superficial portions of the epithelial cells of the conjunctiva are converted into an eschar, and this traumatism, independently of any pre-existing condition, lights up on its own account an inflammatory action which is attended, as usual, with a luxuriant proliferation of the protoplasm of the part; the cells thus formed migrate towards the surface, but the dead tissue there arrests their progress and they accumulate, forming a more or less thick, succulent and albuminoid mass, the deeper parts of which assume the character of a membrane called granular tissue; finally, the eschar is loosened by a continuation of this process, and it falls off or disintegrates; the more superficial portions of the underlying mass mix with the fluids between the eyelids as pus, but the membrane-like portion remains, forming a barrier between further injury of the same nature and the parts beneath. If the cauterization be repeated, only this new granular tissue is sacrificed, more being supplied, as was the first.

That nitrate of silver should have universally given most satisfaction in the treatment of inflammations of the conjunctiva, is not at all surprising, since it is of all astringents

or caustics proposed for that purpose, the one which is most readily neutralized by the salt and albuminoids which it constantly meets there, hence the least injurious of any.

Scarifications may be classed with the foregoing measures. The effect of the direct depletion is, no doubt, more than counterbalanced by the necessary inflammatory action which follows to repair the injury done the part. When employed to relieve the tension produced by chemosis, it is either unnecessary or useless. When the œdematous condition consists of serum which may escape through the cuts, scarifications are absolutely unnecessary, for such accumulations are never dangerous, as has been satisfactorily demonstrated to me by hundreds of cases that I have observed. When, on the contrary, there is a gelatinous, semi-solid, bacon-fat-like swelling of the conjunctiva, erroneously called chemosis also, scarifications have appeared to me to be of no use whatever; the meshes of the tissue are filled with a semi-solid mass which cannot escape through the incisions, and even the tension does not appear to be relieved by them. I have in such cases scarified, but must say that the results have been as good, if not better, when I did not scarify.

Under the head of treatment, Stellwag makes the following remark: "We need give ourselves no trouble about the use of internal remedies," etc. "Mercurials should be avoided." We are thus told at one moment, that the constitutional condition has absolutely no influence on the local affection; and then, immediately after, that the constitutional effects of mercury are injurious. This certainly is contradictory, and we are justified in the conclusion that, if any constitutional condition induced after the disease has set in can harmfully influence the course of purulent ophthalmia (as the effects of mercury, for instance), then a pre-existing condition should also influence its course; and moreover, that if mercurials can do harm, there is no reason, on the other hand, why there should not be other internal remedies which might do good. Of this last I have not the slightest doubt, and believe that it can

be easily proven in practice. So long as such ideas as the forgoing, prevail, just that long must we be prepared to meet with a large proportion of chronic cases; for the marked predisposition which purulent ophthalmia shows to merge into granular conjunctivitis must, I believe, be attributed as much to the neglect of attending to the constitutional condition of the patient, as to the employment of astringents and caustic, or perhaps the nature of the disease itself.

Before speaking of the course which I pursue in the treatment of purulent ophthalmia, I will state that, regarding it, in common with many others, only as an aggravated form of catarrhal conjunctivitis, and believing it to be a self-limiting inflammation, I treat it on that principle exclusively, and see no reason to modify what I have said in Part I. on the subject.

I will now proceed to describe, in a general way, the course that I pursue in the treatment of purulent conjunctivitis, giving, when necessary, my reasons for the same. These are based upon the principles already set forth. I will confine myself simply to the treatment of the affection in its acute stage; the chronic, or granular condition, and the corneal and other complications will not be considered here.

In common with all others, I regard local cleanliness as of the utmost importance, and as this can only be insured by frequent ablutions, I attempt to make the wash as unirritating as possible to the skin and conjunctiva, for either will resent the too constant application of water alone, which itself may become to them the source of marked irritation. The popular reputation that human and cow's milk has in the treatment of sore eyes, is in consequence of its bland qualities as a wash, and is no doubt well-deserved. The fluid which I use to cleanse the conjunctiva and lids, is a weak decoction of *althææ radex*; (any other emollient will do); to this I add one per cent. of chloride of sodium, and occasionally a decoction of poppy heads. I thus secure a perfectly bland and emollient fluid, which, resembling the lachrymal secretion in a measure, produces the least possi-

ble irritation to the conjunctiva and neighboring integuments. Enough of the solution to last during the day is prepared each morning. When needed, a sufficient quantity is warmed to the temperature of the body, and I make use of it as follows: The patient being in the recumbent posture, the eyelids are gently pulled apart, and the detergent is allowed to fall for a few moments upon the conjunctiva, from a sponge held from six to ten inches above the eye; this suffices to remove all the purulent secretion that should be disturbed, provided it be not clotted in tough shreds, or membrane-like masses, which occasionally cling moderately to the parts; when this occurs, I gently attempt the removal of such accumulations with the end of a soft piece of old cotton-cloth rolled to a point; if they adhere so firmly as to require the least force to detach them, they are not further disturbed; at my next visit, (about 4 hours later), they come away without difficulty. In cleansing the eye, I only aim at the removal of the superfluous matter; I regard the pus as the very best protector of the affected surface, one provided by nature for that very purpose; and it only becomes necessary to wash the superfluous portion away, because, decomposing in a short time, it acts as a powerful irritant. I cleanse the parts more or less often, according to the season of the year, and the rapidity with which the re-accumulation takes place. In summer, this attention is evidently necessitated more frequently than in cool weather; practically every two hours is sufficiently often; dangerous cases sometimes must receive care every hour. In serious cases I myself make sure of at least three proper cleansings daily. An attendant may see to the others during the day and night, but these assistants are under no circumstances allowed the use of rags, etc., to get away the thick muco-purulent masses already referred to; if the stream of water does not suffice to bring them away, they are left for me to deal with at my next visit. After the conjunctiva has been reasonably cleansed of its superfluous matter, the skin of the eyelids, and especially the bases of the eyelashes, are thoroughly freed from all collec-

tions; the parts are then gently dried and annointed externally with ung. rosæ to which I generally add aqueous ext. opii. In cases where there are no corneal complications, and the secretion accumulates with great rapidity, the attendant is instructed to open the eye every half hour, by gently pulling the lower lid downward; the excess of pus is allowed to escape, and wiped away with a soft, moist sponge, and the lids once more greased.

In ophthalmia neonatorum I have never found it necessary to apply cold water compresses; the skin is too delicate to bear even so simple an irritant, and the well-known poor resistance that these subjects present to the depressing effects of cold, even when locally applied, is too well understood to call for comment. In the adult I get along without it ordinarily; I use compresses wet with the following solution, the same being at the temperature of the surrounding atmosphere: Aqueous ext. opii, two drachms (3ij.), acet. plumbi, one-half drachm (5ss.), aquæ, eight ounces (3vij.); but if the skin seems irritated by it, even that is discontinued. The local application of ice-water I never make use of; it is open to too many objections. In the first place, we rarely if ever have any certainty that it will be renewed with regularity, every eight or ten minutes—if this is not done, the remedy does more harm than good, as we all know. Again, such compresses must contain quite a quantity of water, else they heat up at once, and the application is varying in extremes of heat and cold; again, the water is constantly escaping from the compresses, and in less than an hour the pillow and hair of the patient are saturated, and a cold in the head, (catarrhal inflammation of the schneiderian membrane), is the result, which does not help to simplify the case. If the ice-bag is used, the degree of cold is too intense, and the weight uncomfortable and injurious; so, on the whole, I have found myself and patients far better off by dispensing with such questionable measures. I certainly have never lost an eye from not using the above, which perhaps may be accounted for by the fact that I need the assistance of such measures less

than others who are constantly irritating these eyes with astringents and caustics. As the case proceeds, the local treatment is varied to suit the exigencies : thus, when resolution sets in and the secretion begins to diminish, I cleanse the conjunctiva less often, and as soon as the discharge assumes a thin mucus character, with only a slight purulent addition, I discontinue the washes to the conjunctiva ; it is then only necessary to keep the edges of the lids clean and well greased. When the inflammation shows any want of action, with a decided tendency to become chronic, I use a very mild astringent irritant to activate the process and keep it up to the point from which resolution may quickly take place. The collyrium for this purpose, which has given me the best results for years past, is one containing one grain of sulphate of alumina, one drop of carbolic acid, and one ounce of distilled water. Even this mild irritant is to be used with care and discretion ; two or three applications daily suffice, and as soon as the desired effect is produced it should be laid aside. If in a given case this fails, you may perhaps be justified in using a stronger irritant, but I have generally found that such cases will run into granular conjunctivitis in spite of all you can do, and you must shape your course accordingly. I find atropine only useful when there are corneal or deep-seated complications ; it can have no beneficial effect on the conjunctival inflammation.

Occasionally we meet with cases which from the very onset develop such violent symptoms that we are able to predict an unfortunate termination, whatever the course pursued ; these can as readily be recognized by the experienced ophthalmologist, as can a fatal case of cholera at the first visit of the equally experienced physician. In these cases astringents, caustics or the knife, all fail, and in my experience the bad results are only precipitated and made more certain by such treatment.

Local abstraction of blood by cupping or leeching, when employed within the first twenty-four or thirty-six hours, seems momentarily to delay the progress of the inflamma-

tion, but I cannot say that I ever saw it cut short or even permanently modify the after course of the inflammation. Why should it? The only effect of such a draining off of the blood is this: If the flow at the point of outlet be in sufficiently direct communication with the over-distended vessels of the part affected, it will diminish the quantity and pressure in the vessels as long as the blood continues to flow, thus enabling them to regain a smaller calibre if no other condition opposes itself to the contraction of their muscular apparatus; but as soon as the flow is stopped at the bleeding point, the blood pressure is virtually the same as before, and if the cause of the inflammation has not been removed it will continue to exercise its influence until it overcomes anew this second enfeebled resistance, and over-distension recurs. Blisters and counter-irritants are useless as far as my experience goes. In adults, where only one eye is affected, I of course, protect the sound organ, but in infants this precaution cannot be utilized practically; we can only seek to localize the affection by extreme care. Good ventilation, nutritious diet and scrupulous personal cleanliness are of great importance and should receive close attention.

I now come to the question of constitutional treatment. Except in cases of unquestionably strong and robust adult individuals, I always prescribe an iron tonic, (tinct. ferri chloridi); children I invariably treat in this way; but in the cases of new-born babies, iron, of course, is not administered; but if there is the least reason to suspect that the mother is wanting in capacity or health to supply the best of nutriment, I, with the consent of the attending practitioner, give her the iron tonic and supporting treatment, supplying a wet nurse, if need be, in urgent cases, or I assist the mother's supply of nutriment with fresh cow's milk. The important item of regular nutrition for the infant is secured by causing the babe to be taken up every hour and a half or two hours to have its eyes attended to, after which it is always nursed; at night the intervals are lengthened. These minutiae may seem trivial to some, but

experience has taught me that neglect of them often ends disastrously. Purgatives I never use ; obstinate constipation should be relieved by appropriate measures, but active purgation I have seen do great harm.

By modifying this course of treatment to suit each individual case, I have been gratified with success beyond expectation, and lest I be accused of exaggerating, prefer, in conclusion, to say no more than this : Try it, and judge for yourselves.

UNRECOGNIZED FRACTURE OF CERVIX FEMORIS.

By A. J. STEELE, M. D.

When an injury to the hip has been received by an elderly person, and there is doubt as to the exact lesion, we may assume that a fracture of the neck of the thigh bone within the capsule has occurred, and should treat the patient accordingly. For, the nosological symptoms of this fracture, such as shortening, crepitus, eversion, may be prevented by either impaction, or from a remaining integrity of the accessory ligament. It is to the latter condition we would especially call attention. Owing to the changes that occur in the senile cervix femoris, a fracture may be produced on slight provocation, and thus it has been aptly called the *appanage* of old age. These changes are an absorption of the thickened corticle substance found at the under side of the neck, and a more horizontal positioning of the cervix.

Many cases occur in which the periosteum and reflected capsule, accessory ligament, are not ruptured, thus the fragments are held together, and the shortening prevented, and the diagnosis not made. The patients being allowed to get up, throw weight on the limb, the figmental ligament running along the inferior part of the neck is chafed and torn, and behold, the positive symptoms of fracture suddenly appear. The deduced lesson is to suspect these cases, and remove all weight and motion from the part.

CASES FROM PRACTICE.

RUBEOLA IN A PREGNANT AND PUERPERAL WOMAN.

BY DR. E. M. NELSON, ST. LOUIS.

December 7th, 1875, I was called to attend I. D., two weeks before the time at which she had expected her confinement. The children of the family in which she was living had all been ill with measles, and she had assisted in taking care of them. As they were convalescing, she was taken with the disease herself, had high fever, coryza, lachrymation, conjunctivitis and bronchitis, with severe cough, and after two and a half days, the characteristic eruption. The third day of the eruption, she was delivered of a healthy boy, after a labor of no more than average duration or difficulty in primiparæ. She made a good recovery, was able to be up and about the room in two weeks after confinement. (She was dressed and taken down stairs and removed two miles in a buggy, when the child was five days old). There were no unusual symptoms during the puerperal state, other than those directly dependent upon the rubeola. She nursed the baby from the first day—had an abundance of milk for him. He had no symptoms, either cutaneous or catarrhal, of having measles, though other children in the house to which the mother and child were removed, contracted the measles from her.

As to the prematurity of the delivery, there may be a question, how far it was dependent upon the measles and how far upon the over-work which she performed in attending upon the sick children, and which involved a good deal of going up and down stairs.

The exemption of the infant from the influence of the contagion is quite as remarkable in this case as in that of Dr. Gautier, of Geneva, who has published an interesting article in the May number of the *Annales de Gynécologie*, under the title "Rubeola in the Puerperal State and During Pregnancy."

I append a summary of his article in connection with my case.

In a recent work upon the diseases of children (Gerhardt, *Handbuch der Kinderkrankheiten*), Dr. Gautier finds this statement: "In pregnancy, and especially in the puerperal state, rubeola exposes to very great dangers, yet less than those of scarlatina."

His attention being attracted by this remark, Dr. Gautier has taken considerable pains to examine the subject. After careful research, he finds very little that bears upon the question, either in the systematic treatises or in the medical journals, although the literature upon the kindred topic of "scarlatina in pregnancy and the puerperal state" is quite extensive.

On one occasion, he had the opportunity of observing the course of an epidemic in a family where three adults and three children suffered from the disease. He gives an account of these cases, one of the adults being a lady 24 years of age, who was at the end of the ninth month of her fourth pregnancy. "Mrs. Y. saw her sister the last time, March 16th, the evening of the day when the exanthem appeared upon her. In view of her state of pregnancy, Mrs. Y. had sought to avoid every kind of contact with the sick. March 27th, at evening, shivering occurred, there was lassitude, a frequent severe cough, coryza and conjunctival catarrh; the same symptoms persisted during the 28th. The 29th of March, at 11 P. M., the patient was delivered of a daughter, after an easy labor. At the moment of delivery, the pulse was 108, the skin hot; there was hoarseness, cough, coryza. The loss of blood did not exceed the normal quantity; natural delivery was not followed with a chill.

The next day, March 30th, at 9 A. M., the face, the neck and chest were studded with spots of rubeola. Distress, lachrymation, sneezing, nothing on auscultation, 110 pulsations, axillary temperature 39.4 (102.9° F.), lochia normal. Mrs. Y. nursed her infant, who did not leave her chamber nor manifest any uneasiness, nor any spot upon the skin.

March 31, 100 pulsations, axillary temperature, 37.9 (100° F.) in the morning, 37.5 (99.5° F.) in the evening. The eruption was very abundant upon the trunk, more discrete upon the limbs. April 1st, 76 pulsations, normal sleep, appetite. The eruption fades, the spots have assumed a clear brown tint, secretion of milk abundant; the infant does not leave her mother's chamber,

she nurses regularly, and has not an instant of fever nor any catarrhal symptom; the skin has always had its normal color. No complication has supervened with Mrs. Y. She was able to be up two weeks after her confinement."

"The period of incubation was not longer in the lying-in woman than in other members of the family; this circumstance is noteworthy. In a very well prepared paper upon scarlatina in the puerperal state, Prof. Olshausen, of Halle, advances the hypothesis that the period of incubation of scarlatina can be prolonged during weeks and even months by the fact of pregnancy: this hypothesis, which certain facts seem to confirm, could not be admitted for rubeola, at least in our case, since the symptoms of invasion preceded the delivery."

He then mentions other cases, which he has been able to collect from different sources, a considerable proportion of which show much more serious results than occurred in his own case.

"In summing up," he says, "here is what these writings, so incomplete and so few in number, teach us: it is that rubeola, during pregnancy, predisposes to death of the fœtus and abortion. It is not without danger to the mother.

"When, on the contrary, rubeola ensues during the puerperal state, the prognosis will be less grave whether for the mother or for the child, although this in almost every case presents all the symptoms of the exanthem. In no case is mention made of hæmorrhage."

With reference to the question whether, in the case cited, the infant might not have passed through the disease during fœtal life, he says: "This supposition appears to me inadmissible, because the eruption appeared in the mother fourteen days after the time when she was exposed to contagion. To admit that the infant had suffered from rubeola before her birth, it would be necessary to suppose at the same time that in her (the infant) the complete evolution of the malady, including the period of incubation, had taken place in the short space of fourteen days. Every trace of cutaneous eruption and of catarrhal symptoms was absolutely wanting at the moment of her birth."

ACUTE CYSTITIS IN THE VIRGIN.

BY EUGENE C. GEHRUNG, M. D., ST. LOUIS.

In the May number of the COURIER, under the caption, "New method in the treatment of Acute Cystitis in women," I made the following statement: "I regret that this plan is not of universal applicability—*since it excludes the virgin * * **." While that article was going through the press I was obliged to change my opinion, as may be seen by the following:

CASE. Miss L. M., aged 19 years, called at my office on April 24th, and stated that about a week previous she was chilled after taking a bath, and that day before yesterday, April 22nd her menses—which generally last three days, with vomiting and pain—had commenced in the morning and ceased in the evening on the same day. Suddenly the pain and soreness in the bladder and urethra, that had worried her all day, became intensified and accompanied by frequent micturition. Since then she was unfitted to perform her duties and obliged to keep her bed in consequence of the pains in her bladder. Micturition was attended by tenesmic pains, and occurred "every few seconds," with a sensation as if the bladder was never completely emptied; she had no rest day or night; the urine was milky at first, and later became slimy; her appearance was that of suffering and exhaustion.

On examination I found the meatus urinarius inflamed, the urethra and bladder very tender to the touch, the uterus slightly anteverted, and the bowels loaded with feces, on account of habitual constipation. The hymen was perfect and barely admitted the index finger. For the purpose of using the cotton tampon, as described in the above mentioned paper, *I introduced a Ferguson's speculum of the size of my index finger, and with a pair of uterine forceps passed a number of dry cotton wads, as large as the calibre of the speculum would admit, throught it into the vagina,* then withdrew the speculum, and by means of the index finger arranged the cotton *secundum artem* against the posterior wall of the bladder. For the constipation a laxative was prescribed. Immediately after the application of the tampon the patient expressed herself as much relieved.

25th, P. M. She felt much better all the afternoon yesterday, passed urine only once an hour ever since the treatment.

From the moment of the first application she was able to resume her work which she kept up unremittingly during the entire course of treatment. This morning she felt worse from the matting of the cotton, and from a rheumatic pain in her side, (loin). For the latter a diaphoretic mixture and local friction were ordered. She had a good action of the bowels in the morning. I introduced the speculum again, and through it, by the aid of the forceps, removed the old and applied fresh cotton, after which the same improvement took place as after the first application. The diet was of course regulated.

27th. The patient having been too busy to come yesterday, did not feel so well; some of the cotton had come down, and lodging against the urethra, caused pain; after removing what she could reach, she felt better again. Micturition about once an hour, with much less pain: urine clear. Treatment the same as on 25th, except diaphoretic. She said: "It feels so much better (*i. e.*, the relief is so much greater,) when the cotton is freshly applied."

28th. "I feel so well to-day that I should not know that I was sick, except for a little soreness when passing water." She slept well and urinated but four times, (about once in 3 to 4 hours), to-day. Appetite much improved.

May 1st. "I feel perfectly relieved from the bladder trouble." The cotton had remained unchanged for three days. There was but very little matting. For precaution's sake a fresh, but smaller packing was made.

May 3d. "The bladder continues well. Menstruation came on again. Some of the cotton came down, and I removed all I could reach." The balance of the cotton being removed, the uterus was found as much anteverted as before the treatment.

REMARKS.—The reader will object: 1st. That the cystitis was caused by the arrest of menstruation, and that the return of the latter cured the former.—On the contrary, the return of menstruation appears to have been possible only after the cure of the cystitis was accomplished. Both were undoubtedly dependent on the same cause. 2d. That the cure of the cystitis depended on the cure of the anteversion.—The events show that that the anteversion was not even relieved, while the cystitis was cured. 3d. That the cystitis would probably not have lasted longer without than with treatment; it being often of short duration. Even if such were the case, this fact was unknown at the

commencement, and will be so in every case; yet, the immediate relief obtained by the treatment, and that before the use of any of the medicines prescribed, leaves a great balance in its favor.

The patient remains well to this day, now four months.

This case illustrates the applicability of this mode of treatment in the virgin, contrary to my former expressed opinion.

TRANSLATIONS.

From the French, by E. M. NELSON, M. D., St. Louis.

PURULENT DIAPHRAGMATIC PLEURISIES—DR. NOEL GUENEAU
DE MUSSY.

According to the remark of Laënnec, if diaphragmatic pleurisy is one of the most common maladies, as the frequency of adhesions and false membranes observed in this region after death attests, it is one of those which are most frequently unrecognized. In a work published in 1853, I have indicated signs which, I believe, render the diagnosis easier and more precise. I shall repeat them here while completing them by some new observations.

First. Besides the spontaneous pain and that which is evoked by manual pressure at the level of the base of the chest, there are disturbances of sensibility which appear to me to have a great value for diagnosis. The phrenic nerve undergoes a morbid irritation which throws light upon the seat of inflammation; it becomes the seat of a hyperæsthesia, which may be determined at the level of the superficial expansion of the nerve in the epigastric region, and especially at a point which I have called the "diaphragmatic button," because when one presses it the patient complains instantly of a keen sensitiveness, sometimes of an excessive, unbearable pain, accompanied by twinges which make him start and groan. This point is found at the intersection of two lines, of which one is parallel to the external border of the sternum and the other, perpendicular to this, follows and prolongs the border of the ribs.

I know only one disease of inflammatory character, in which one observes, in a much lower degree it is true, this hyperæsthesia of the phrenic nerve. That is pericarditis, and not only is it there less pronounced, but often the seat of it is a little different, and the maximum of that abnormal sensibility, in many patients affected with pericarditis, corresponds to the costo-xiphoid angle.

At the same time that the terminal extremity of the phrenic nerve manifests this trouble of sensation, an exaggerated sensibility is determined between the two lower attachments of the sterno-cleido-mastoid muscle, the irritation is propagated in an ascending course the length of the trunk of the nerve; it is turned by a sort of reflex action upon the nerves which have a connection in origin with the phrenic, and provokes pains in the shoulder and in the sub-clavicular region.

It is not rare that a neuralgia and hyperæsthesia of the last intercostal nerves accompanies the hyperæsthesia of the phrenic nerve.

Second. Another habitual symptom, without being absolutely constant, in the effusions upon the diaphragm, is the depression of the last rib corresponding to the diseased side. Pressed down by the collection of liquid, the diaphragm draws in this rib; and when the patient is seated, one may determine that it is more oblique, and that it descends lower at its free extremity than that of the opposite side.

Much more rarely, in some subjects, the tenth rib appears pressed down a little.

As a consequence of the sinking of the diaphragm, the liver usually projects beyond the ribs.

Third. The immobility of the hypochondrium, as I have said, is not constant, and it has not the necessary relation with the purulent character of the effusion affirmed by some physicians. To this immobility is added, sometimes, a sort of withdrawal of the linea alba and of the umbilicus, which at each inspiration seems to draw them from the side opposite to the immobilized hypochondrium; further, when one embraces with the hand the region of the flank corresponding to the diseased pleura, immediately below the ribs, he feels, if the diaphragm is pressed down by an effusion, a resistance, a fullness, which he does not find in the other flank.

I will add that I have found in two cases that the hollow

[saddle-shape] of the flank tends to be effaced, and that this region, instead of offering a concavity, forms almost an upright plane between the iliac crest and the costal border, the distance of which is diminished.

Fourth.—Percussion gives a sound with a sharp tone, a little tympanytic, in a semi-circular band which corresponds to the part of the lower lobe of the lung contiguous to the effusion.

Fifth.—On auscultation, the vesicular sound at the level of the collection of liquid is, in general, less strong, less full, and sharper than in the rest of the lung; it is sometimes mixed with crepitant or mucous râles, which indicate a congestive state of the pulmonary tissue about the seat of effusion.

The weakness of the respiratory sound, followed by prolonged expiration, although more pronounced at the base, may exist in the whole lung of the diseased side, and depend then upon the compression of the principal branches by an enlargement of the tracheo-bronchial glands which ordinarily accompanies diaphragmatic pleurisy.

All these signs lighten the obscurity with which this affection appeared to be enveloped in the time of Laënnec: and I have had many times, in the course of thirty years, occasion to verify their exactness; many a time have I seen to generalize and become thoracic, at the same time that the functional troubles diminished, a pleurisy which in its first phase I had recognized to be limited to the diaphragmatic region; in other cases the autopsy has occurred to give to the diagnosis formed an indisputable confirmation.—*Archives Générale de Médecine*, July, 1879.

ORIGIN OF THE STETHOSCOPE.

One day as he [Laënnec] was crossing the court of the Louvre, he observed some children who, with ears applied to the two extremities of a long beam, were transmitting reciprocally the light sound provoked by the stroke of the finger against the opposite end. In the intermediate space no sound was perceptible. The careful observer reflected, and soon, like Archimedes, he was able to exclaim, "*I have found it.*"

Some time afterward, in fact it was in 1816, being consulted for a young woman who presented general symptoms of heart

disease, in which percussion gave small results on account of the stoutness of the subject, the age and sex of the patient forbidding his listening directly with the ear, he remembered the children of the court of the Louvre. Immediately he took a paper copy-book, of which he made a roll closely pressed together, placed one end of it upon the chest of the young woman, applied the other to his ear, and found with pleasure that in that manner he could perceive much more clearly the beats of the heart. So a play of children and regard for modesty were two facts which led to the discovery of mediate auscultation.

Laënnec then modified this roll of paper, giving it more firmness, limiting its length to a foot, its diameter to sixteen lines—smoothing the two extremities with a file. Then he made other experiments: He constructed a tubular cylinder of gold-beater's skin, which he filled with air by means of a spout, and of which the central opening was maintained by means of a support of pasteboard; he made an experiment with glass and with metals; finally he stopped with a cylinder of light wood, pierced in its center with a tube, expanded at the extremity in the form of a funnel. We have seen in our youth the original stethoscope of Laënnec. In truth, it had a size altogether useless and well adapted to terrify patients.—*A. Chereau, in Arch Gen. de Med., July, 1879.*

Translations from the German, by E. EVERS, M. D., St. Louis

A NEW ENDEMIC DISEASE OF NEW-BORN CHILDREN.

BY F. WINCKEL.

On the 19th of last March an infant only three days old was attacked by a disease presenting very peculiar symptoms, at the Lying-in Hospital of Dresden. This case ushered in an endemic which continued, with an interval of ten days after isolating the diseased, to the 21st of April, and which attacked twenty-three children. Nineteen of these (eighty-two per cent.) died; one was discharged well, one convalescent and two still suffering with the disease. The day of the attack varied from the first to the twelfth, but was generally the fourth day of life. The children had nearly all been carried to term; delivery and confinement were normal. Nine were boys and fourteen girls; eighteen were nursed by the mother.

The first child taken sick, after the interval of ten days referred to above, presented the following condition: It was a strong, well-developed child, weighing 4,280 grms. (8½ lbs.) The mother was delivered ten days after the last child was taken sick, and had watched one night in the ward in which the sick children lay. The child took the breast next day, but drank very little and seemed benumbed. On the second day of the disease the symptoms were very characteristic: Cyanosis of the entire body; conjunctiva slightly yellow; respiration sighing; urine pale brown, often discharged only by aid of abdominal pressure; hæmoglobinuria. The urine contained urate of ammonia and albumen; epithelia of the bladder as well as of the pelvis of the kidneys; granular cylinders with blood-corpuscles; micrococci and masses of detritus. Temperature normal; in no case was there any fever. The condition of the blood was remarkable. A small incision into the cyanosed portions was not followed by the escape of blood; it was only after firm pressure that we could force out a dark-brown fluid having the consistency of syrup. It contained an increased number of colorless blood-corpuscles, a number of small granules (detritus of red blood-corpuscles), and a number of bodies exhibiting molecular motion. The abdomen was not distended; the liver was somewhat enlarged; organs of the chest normal; sounds of the heart somewhat muffled. As the disease progressed, convulsive twitchings of the extremities and of the muscles of the eye-ball set in, which continued to increase until death supervened a few hours later.

Post mortem: In one case only was there disease of the umbilical vessels; liver dark brown, enlarged; in some instances granular degeneration; spleen thickened and enlarged; pancreas extremely hyperæmic. Cortical substance of the kidney brown, with dark striæ and frequently extravasation of hæmoglobin in the papillæ. The stomach was in all cases much dilated, sometimes distended like a balloon, with ecchymoses here and there. Beginning below the duodenum, we found a series of ecchymoses affecting the mucous membrane of the entire intestinal tract; enormous enlargement of the mesenteric glands. There were also ecchymoses of the pleura; œdema of the brain and dilatation of the ventricles; marked hyperæmia and numerous extravasations; in some cases well-pronounced icterus.

As to the cause of the disease, we can only say what it is *not*.

We may exclude: effects of delivery, puerperal infection, poisoning, especially with morphine, opium, phosphoric acid, chlorate of potassa. It is not due to the nourishment, nor to the baths; neither to the clothing, nor to the accommodations. The disease germ must be intensely active; it probably enters the blood directly, and especially affects the organs of digestion, as the greatest disturbances are found here. The author proposes to name the new disease, "*Cyanosis afebrilis icterica perniciosa cum hæmoglobinuria.*"—*Reviewed by Schellenberg, in Centralblatt für Gynäkologie, July 19, 1879.*

From the French, by CHARLES A. TODD, M. D.

CONTRIBUTION TO THE STUDY OF THE CAUSES PROHIBITIVE OF THE FINAL REMOVAL OF THE CANULA AFTER TRACHEOTOMY IN CHILDREN. FROM THE BROCHURE OF M. CARRIÉ, FORMERLY HOSPITAL INTERNE.

M. Carrié does not propose to pass in review, after the method of other authors, all the causes which may constitute an obstacle to the removal of the canula in the case of a child operated upon by tracheotomy; he limits himself to the study of two varieties of tracheal constriction. The first variety, although relatively rare, has been, however, already demonstrated in a certain number of cases. It arises through the presence of fleshy growths springing from the wound, especially through those deeply-seated upon the borders of the tracheal incision, and which grow in the midst of cicatricial tissue projecting into the air passage after the closure of the cutaneous wound. It was, indeed, a case of this nature observed with care by M. Carrié during his internate at hospital Ste. Eugénie, that suggested to the author these researches upon the subject. The second variety of tracheal constriction treated by M. Carrié, up to the present time had not been described at all; it had been pointed out to him by his teacher, Prof. Guyon, who had observed it under the following conditions: A tracheotomized child was seized with a fit of suffocation just as the physician was attempting to effect a permanent removal of the canula. Examining the depths of the tracheal wound, he perceived a reddish prominence in the interior of the trachea, which was

taken for fleshy vegetation of the posterior wall. The child died in a fit of suffocation. Prof. Guyon recognized upon the post mortem specimen sent him, that the projection, regarded during life as vegetation, was formed by the posterior wall of the trachea itself, which was folded longitudinally in its entire thickness. This folding was itself due to the approximation of the posterior extremities of the tracheal rings separated anteriorly for the introduction of the canula. M. Carrié, experimenting with the view of discovering the conditions of the production of this protrusion, concluded that this particular variety of constriction, which hitherto had not been pointed out, ought to be, nevertheless, rather frequent among children. It occurs after the introduction of the canula, and the more readily according as the membranous span which lies between the posterior extremities of the rings is large. It affects chiefly the first three rings of the trachea. The projection which results produces a tracheal constriction that may persist and prove an obstacle to the permanent removal of the canula. The first part of his thesis M. Carrié devotes to the study of the fleshy growths of the wound. These growths may constitute in themselves an obstacle to the removal of the canula; but above all, they give rise to conditions of a very serious nature. Their treatment is much more difficult when they continue and develop from the tracheal surface after complete cicatrization of the cutaneous wound. In these cases, when there occurs during the night oppressive respiration and wheezing, delay should not be made until the appearance of the first attack of suffocation, which might be fatal, but the trachea should be re-opened. —*Arch. Gén. de Med.*, August, 1879.

Translations by E. C. GEHRUNG, M. D., St. Louis.

LACERATION OF THE WOMB WITH COMPLICATIONS.

Herr Roeseler reported to the Berlin Obstetrical and Gynaecological Society a case of spontaneous rupture of the uterus, *inter partum*, of a primipara, with total absence of any recognizable predisposing cause. The case is unique because of the invagination of a loop of intestine (the *S. romanum*) through the rent into the womb. This being strangulated by the rapid

healing of the wound, the ileus was rapidly cured. The case was not seen by R. until three weeks after labor, when the true condition of things was masked by pelvic cellulitis (Beckenphlegmone). After four weeks residence at a hospital, and seven weeks after the accident, the uterus was found spherically distended and reaching above the symphysis. Its contents were found to consist of a section of intestine 20 centimetres (about eight inches) in length. The tormenting pains of peristalsis, the uterine colics and the sympathetic pains in the mammae ceased immediately on "resection" of the now useless piece of gut. The preternatural anus, that was found in the womb, closed spontaneously.

"A reactive suppurating cellulitis now sprung up in the recto-vaginal septum and by perforation established a recto-vaginal fistula. The case terminated in recovery. Though five months have elapsed since the 'resection,' the resorption of the inflammatory products is not yet complete."—[*Berl. Klin. Woch.*, July 21, 1879.

WOUNDS OF JOINTS TREATED WITH POWDERED ALOES.

M. E. Millet, in the *Arch. Méd. de Belge*, recommends the treatment of articular wounds by powdered aloes. In imitation of the veterinary surgeons, who treat articular wounds in the horse with the best success by means of the aloes powder, M. M. tried it on the human subject, in a case where the index finger had been torn off through the metacarpo-phalangeal articulation and connected with the hand only by a strip of skin. The finger was placed on a splint covered with wadding, the aloes powder thickly strewed over it,—where it melted by the heat of the hand, and formed an air-tight covering,—and the whole fastened to the splint with a narrow tape, without compress or sharpie. The success was complete; a useful finger the result; the dressing changed but twice in a fortnight; there was no fever, no pain and scarcely any suppuration. The pain ceased immediately on the application of the powder.—[*Gaz. Hebdom.*, July 14, 1879.

REPORTS ON PROGRESS.

MONTHLY REPORT ON THE PROGRESS OF THERAPEUTICS.¹

Liq. Sod. Chlorinat. in Diphtheria.—OLIVER highly recommends this drug, of the strength of 1 part to 3-6 parts of water, as an efficient local application. He gives internally 1 gr. of quinine and 4 grs. of chlorate of potassium every four hours.—*Edin. Med. Journal, July, 1879.*

Atropia in Tetanus.—CULLMORE reports a case of traumatic tetanus which recovered under the hypodermic use of atropia. At first the one-sixtieth of a grain was injected three times a day; on the second day one-fortieth of a grain was introduced four times a day, which was continued for six days; on the eighth and ninth days the dose was reduced to one-sixtieth of a grain twice a day, and for a further period of two days this quantity was administered at night only. Two grains were thus introduced into the system within the space of nine days. None of the physiological effects of the remedy were observed.—*Lancet, July 12th, 1879.*

Quebracho in Dyspnœa.—PENZOLDT, of Erlangen, (Berlin Klin. Woch., No. 19, 1879), gives some interesting experiments on men and animals with a new drug, the bark of *aspidosperma quebracho*, (*apocynaceæ*), sent from Brazil, where it is reputed to have antipyretic properties; which properties, however, seem doubtful. P. tried it in various forms of dyspnœa depending on emphysema, bronchitis, phthisis, pleurisy, etc., and obtained excellent results. The most marked objective symptom after its use was a reddening of the previously cyanosed tint of the lips and face. The respirations became deeper and less frequent, and the patients expressed themselves much relieved. The first feeling after taking the drug was one of warmth in the

¹ This department of the *COURIER* will contain only the most recent therapeutical suggestions, taken from the original sources in our large list of German, French, British and American exchanges. It is intended to make this section of the journal one of especial value and interest to *practical men*, who are busily engaged in the duties of their profession.

head, with less desire to cough and freer expectoration. Occasionally sweating occurred and in some cases profuse expectoration.—*Medical Times and Gazette*, July 12, 1879.

Trigeminal Neuralgia of long standing cured by Aconitia.—WEIR furnishes the notes of this interesting case. P. D., at 38, was first seen in April, 1879; had had severe neuralgia for 18 years, affecting principally distribution of infra-orbital nerve of left side, with paroxysms recurring nearly every minute. Eighteen months since the nerve was divided at the point of emergence on the cheek, and half an inch removed. Pain was then absent for three or four months, but returned, and was more marked in parotid and temporal regions, and along the teeth of the upper jaw. Duquesnel's preparation of aconitia was then exhibited in doses of $\frac{1}{140}$ gr. *ter die*, which was afterwards increased to $\frac{1}{96}$ grain. After second dose the patient felt slight coldness over the body, with some tingling sensations. No relief ensuing, in two days, four doses of $\frac{1}{96}$ gr. each were given; there was no physiological effect, but the pain was lessened, and the patient slept without an anodyne. Six days after, the dose was increased to $\frac{1}{96}$ grain seven times a day. From this time on the pains gradually became less and finally disappeared. No physiological effects were noted, except an occasional slight chilliness.—*Archives of Medicine*, Aug., 1879.

Oxalate of Cerium in Pertussis.—MORJE claims for this drug in whooping-cough, that: 1. It decreases the attacks and thereby reduces the violence of the disease, often checking it instantly. 2. It is easily administered, as only one dose is required in 24 hours. 3. Nocturnal quietude is insured. 4. The possibility of complications is lessened. The dose used was from one to three grains, given before breakfast, and was kept up for one week longer than there was any existence of the whoop. M. employed the remedy in ten cases, ranging from one to seven years of age.—*N. Y. Med. Record*, July 19, 1879.

Atropia in Acute Inflammation of the Middle Ear.—THEOBALD highly recommends atropia in the acute inflammation of the middle ear due to colds, the usual cause of the familiar ear-ache of childhood, as well as in the more severe forms of otitis media that follow the exanthemata. His method of employing it is to drop 8 or 10 drops of a solution, (generally 4 grs. to one ounce of distilled water, or where the pain is very severe, double the

quantity of atropia), into the ear, the patient being directed to keep the head in such a position that the drops shall remain in contact with the drum-head for 10 or 15 minutes.—*Am. Jour. of Otology, July, 1879.*

Salicylic Acid in Scarlatinal Otorrhœa.—CUTTER advises that after the ear has been thoroughly cleansed (by means of a pledget of cotton attached to a wooden toothpick), the meatus be filled, by the use of a laryngeal powder insufflator, with the salicylic acid in powder. Dr. Chisolm, of Baltimore, recommends the same practice. The results are said to be highly gratifying.—*Maryland Med. Jour., July, 1879.*

Treatment of Seminal Emissions.—BUMSTEAD gives the following prescription for its special tonic effect upon the genital organs:

		Grams.
R.	Tr. ferri chloridi,	\bar{z} iii 90
	Ext. ergot. fld. (Squibb's),	\bar{z} ii 90

M. et sig: A teaspoonful in water after each meal.

As a direct means of diminishing the frequency of the emissions, B. recommends:

		Grams.
R.	Potass. bromidi,	\bar{z} i 30
	Tr. ferri chloridi,	\bar{z} i 30
	Aquæ,	\bar{z} iii 90

M. et sig: From one to two teaspoonfuls in water, after each meal and at bed time.

The avoidance of tobacco in all its forms, cleanliness of mind and body, laxatives when needed, and, in a word, attention to the rules of hygiene, are to be strictly enjoined.—*Am. Practitioner, July, 1879.*

Therapeutics of Diarrhœa in Children.—SMITH, in a valuable paper on this subject, makes use of the following formulæ: For diarrhœa due to dentition, when the gums are hot and swollen, and the child is nervous and irritable:

		Grams.
R.	Sodii bromidi,	\bar{z} ss 2
	Mucilag. acaciæ,	
	Aq. puræ, āā, q. s. ad.	\bar{z} ii 60

Sig: One teaspoonful every three hours to a child between six months and a year.

For flatulent diarrhœa :

		Grams.	
R.	Magnes. calcin.	ʒi	4
	Spts. ammon. aromat.,	℥.,xl.	2 25
	Tr. assafœt.,	ʒi	4
	Anisette,	ʒvi	23 50
	Aq. cinnamon. q. s. ad	ʒiv	124 50

Sig: One teaspoonful every half hour till relieved, for a child from three weeks to four months.—*N. Y. Med. Rec.*

Fuchsine.—This substance, so largely used in the arts, and as a coloring matter for wines, attracted the attention and caused great anxiety to the sanitarians. It has, however, proved not only harmless in physiological doses (gr. $\frac{1}{3}$ to gr. 3, daily), but has attained almost the rank of a specific in albuminuria. M. Bouchut, Feltz and others, have reported successful cases. M. Dieulafoy, after a careful analysis of the recorded cases, has shown that the milk treatment was used simultaneously with the fuchsine in all of them, thus making it very doubtful which was the curative agent.—*Gaz. Hebdom.*, July 25, 1879.

Chloral and Oxide of Zinc in Infantile Diarrhœa.—TISON highly recommends the simultaneous use of chloral and oxide of zinc in the intestinal troubles of young children. The chloral is given by enema, and the zinc *per orem*. A rigorous diet is enforced. The following are two of his favorite prescriptions :

		Grams.	
R.	Hydrate of chloral,	ʒi	1 50
	Starch water,	ʒii	60

One to one and one-half teaspoonfuls for a small enema, twice or thrice a day.

		Grams.	
R.	Oxide of zinc,	ʒi	1 50
	Powdered gum,		
	White sugar, of each,	ʒii	7 50
	Lactopeptine,	ʒi	3 50
	Cinnamon water,	ʒi	32

One teaspoonful every five hours.—*Journal des Sc. med. de Louvain—Gaz. Hebdom.*, July, 1879.

Topical Uses of Ergot.—DABNEY has used ergot, locally applied, in a number of different affections, and with much benefit. He has used it with advantage in *conjunctivitis* in the chronic stage, especially when the blood-vessels were enlarged

and tortuous. The treatment directed was the frequent cleansing of the eye with warm water, and the instillation, after each washing, of a few drops of the following solution: Ergot (solid extract), grs. x; glycerine, fʒi; water to make fʒi. M.

Where there is intolerance of light, and the eyes are painful, this treatment should be avoided.

D. has succeeded in checking growth of *pterygium* by the application of the same solution, three times a day.

In *pharyngitis* of a chronic character, and in *hypertrophy of the tonsils*, he has obtained excellent results. In these cases the following formula is recommended:

Ergotine, grs. xx; tinct. iodine, fʒi; glycerine, to make, fʒi.

M: To be applied twice a day, with a camel's hair pencil.

It is said to be especially applicable in *cervical metritis*. In cold weather suppositories, made as follows, are found of most service:

Ergotine, grs. xx; ext. belladonna, grs. ii; cocoa butter, q. s.

M: Make six suppositories, and insert one into vagina nightly, after using hot douche.

In warm weather a solution is preferable: Ergotine (or Squibb's solid extract), ʒss; ext. belladonna, grs. vi; water and glycerine, of each, fʒiv. A pledget of cotton is saturated with this solution, and inserted into the vagina at bed time, after use of the douche. The cotton should be removed in the morning.

—*Am. J'l Med. Sc.*, July, 1879.

Symptomatic Treatment of Consumption.—To Produce Sleep.—

DR. HENRY GIBBONS, in a valuable paper says: There is one point in the treatment of all diseases which should never be lost sight of, viz: to give the patient a comfortable night, if possible. Night without sleep is always a torture to the sick. Cough and night-sweats are the two great hindrances of repose to the consumptive. For some years past, I have been in the practice of depending largely on digitalis to allay coughing, adding to it the expectorants and opiates.

			Grams.	
R.	Tinct. belladonnæ,	ʒij.	8	25
	Syrup scillæ,	ʒii.	62	
	Sulph. morphiæ,	gr. iv.		
	Syp. tolut. ad.,	ʒiv.	125	
				M.

S: One teaspoonful at bed time, repeated if necessary.

For Night Sweats, there is nothing equal to belladonna or atropia. A pill of oxid. zinci, gr. ii., ext. hyoseyami, gr. iv., is often

effectual. But half a grain of extract of belladonna added to it form the most efficient agent for the purpose I have ever tried. If it should not prove effectual in that proportion, the quantity should be increased. A Dover's powder will often *prevent* sweating and procure a good night's rest. The dose should be fifteen grains. It is a matter of importance in the treatment of coughs, night-sweats, etc., to change the prescription frequently.

For the treatment of Pleuritic, Muscular and Neuralgic pains, I have returned to the old-fashioned method, which I had abandoned in obedience to fashion, *i. e.*: cupping and counter-irritation by mustard, croton oil, antimonial ointment and blisters. Dry cupping and blisters have the preference. So far from patients complaining of their pain, there is no appliance so welcome, for the relief is so marked.

To check Consumptive Diarrhœa, the following preparation is useful:

		Grams.	
R.	Salicine,	gr.iii-vi.	30
	Sub-nitrate bismuth,	gr.vi.-xii.	60 M.

S: One powder every three or six hours, as occasion may require.

For the arrest of Hæmoptysis, ipecac in ten to twenty grain doses is very efficient, and if taken in small non-emetic doses is the best preventive we know of.—*Pacific Med. & Surg. Jl.*, Aug. 1879.

Treatment of Early Phthisis. FOTHERGILL says:—It as is important to study the tongue as the chest; attention to the stomach and bowels is as essential as the treatment of night sweats. It is useless to give cod-liver oil when the tongue is covered with thick fur, administer rather a co. calomel and colocynth pill every night, and a nitro-hydrochloric acid mixture with an infusion of cinchona *ter die*, until the tongue clears. If the tongue is raw, give bismuth with an alkali, and milk diet. Seltzer water and milk may be used when milk alone is too heavy and constipating. When the tongue becomes normal then the cod-liver oil and iron may be administered. Diarrhœa is checked by a pill of ferri sulph. gr.ss, and opium gr. i; rice water being used as a drink. Hydrobromic acid with spts. chloroform affords relief from harassing cough.—*Practitioner*, Aug 1879.

EDITORIAL.

DR. A. J. STEELE, *Editor.*

DR. W. A. HARDAWAY, *Associate Editor*

PROF. E. W. SCHAUFFLER, M. D., *Corresponding Editor.*

"It is not so much what you ought to do, as what you ought to know not to do,"—*Sir engamin Brodie, Lectures, 1837.*

LIPÆMIA AND FAT EMBOLISM IN THE FATAL DYSPNŒA AND COMA OF DIABETES.

PROFESSOR Sanders and Mr. Hamilton contribute a very valuable and highly interesting paper on this subject to the *Edinburgh Medical Journal*, for July, 1879. The space at our command allows only the presentation of the more salient points.

Kussmaul¹ drew the attention of the profession to a remarkable mode of death in diabetes mellitus, which heretofore had not attracted particular notice. The fatal symptoms consisted in a peculiar sort of dyspnœa, often of terrible intensity, which, after a time, was accompanied by and ended in coma. It was known that fatal coma was not of unfrequent occurrence in diabetes, and that equally fatal respiratory symptoms were not uncommon; but the first, when not due to cerebral hæmorrhage, was ascribed to uræmia, and the latter to a "pneumonie foudroyante." On careful analysis of the case that had occurred in his practice, Kussmaul came to the important conclusion that the dyspnœa and coma were due to some profound alteration in the blood of diabetics. Many years before, Petters, attracted by the peculiar chloroform smell of the urine and excreta of diabetics, had discovered the presence of acetone in the urine and blood of a patient, and had referred the

¹ *Deutscher Archiv. f. Klin. Med.*, Aug. 1874.

fatal issue of his case to acetone poisoning. Kaulich confirmed and extended the observations, but the symptoms he attributed to acetone poisoning—apathy, somnolence, *weakness and slowness of respiration, &c.*,—were not in accordance with Kussmaul's clinical experience. Experimenting on dogs and rabbits by sub-cutaneous injection and inhalation, he found that acetone could produce intoxication and stupor, but not anæsthesia. It resembled alcohol more than chloroform in its effects, but it was more potent than alcohol, also more volatile, speedily evaporating by the lungs. In moderate amount, acetone caused intoxication, with slow respiration; in the highest degree of acetone poisoning, along with the stupor, the breathing was slow, sometimes stertorous, and the respiratory movements were unusually deep, becoming afterwards irregular. Kussmaul thought that the coma in these experiments resembled the diabetic coma, and that the very deep in- and expiratory movements in the first stage of acetone poisoning were like the dyspnœa observed in his patients. At the same time, he noticed the objection to this theory of acetonæmia, that a large quantity of acetone is necessary to produce poisoning, and that we are ignorant whether a substance that exhales so rapidly through the lungs can accumulate in the lung in large amount. He suggests, however, that the long-continued introduction of acetone into the blood might, in weak conditions of the nervous system, induce a chronic poisoning which might suddenly assume an acute form, just as chronic alcoholism in drunkards breaks into delirium.

Aside from any theory of causation, the clinical features of this deep, double dyspnœa and subsequent coma observed in some cases of diabetes are highly interesting.

The facts advanced by Sanders and Hamilton, substantiated as they are by chemical and microscopic investigations, would seem to offer a more satisfactory explanation of these symptoms, than the acetone theory proposed by Petters and embraced by Kussmaul.

That the blood in some cases of diabetes contained an

unusual amount of fat, has long been known. Dobson and Rollo, many years since, pointed out this fact, and the observations have been confirmed by a great number of others, among whom are Marsh, Hutchinson, Thomson, Lebert, Pavy, Hoppe-Sayler, etc. These observers have shown that an appreciable amount of fat can be extracted from the blood of diabetics, by agitating it with ether. Simon found 2 to 2.4 per cent., while the normal is only 1.6 to 1.9 per cent.

It would appear, from the observations of Sanders and Hamilton, that this accumulation of fat in the blood of diabetics, is entitled to more consideration than it has yet received at the hands of pathologists. It occurred to them that this lipæmic condition might afford, in the way of fat embolism, a clearer elucidation of the symptoms of the dyspnœa than did the acetonæmic theory. Without entering into the details of their investigations, we give the results that led them to hold this view of the causation of the deep, double dyspnœa and coma frequently observed in cases of diabetes:

1st. The fatty state of the blood in all the cases known to them.

2d. The anatomical evidences of fat embola, chiefly in the minute pulmonary vessels and capillaries, and to a less extent in those of the kidneys and other organs.

3d. The entire similarity of the histological appearances in the lungs to those found in fat embolism from fractured bones.

4th. The analogy in the symptoms of dyspnœa and coma in fat embolism from fracture, as compared with the diabetic conditions. In this connection, reference is made to the clinical observations on fat embolism, by Prof. Czerny (*Berliner Klin. Woch.*, November, 1875).

J. B.

THE BRITISH MEDICAL ASSOCIATION.

The forty-seventh annual meeting of the British Medical Association met in Cork, commencing Tuesday, August 5, 1879. The sessions were held in Queen's College. There was a large attendance present, including delegates from medical organizations of other countries—France, Germany, Italy, Switzerland, and the United States. From the latter were DRS. HODGEN, of St. Louis, (to whom we are indebted for report of proceedings); Sayer, Seguin, Beard, Gray, of New York; Yandell, of Louisville; Turnbull and DaCosta, of Philadelphia; Palmer, of Ann Arbor.

In the college building was a large display by different manufacturing firms and dealers, of drugs and pharmaceuticals, of which Wyeth, of Philadelphia, and Parke, Davis & Co., of Detroit, made a creditable showing; instruments and various surgical appliances; and in the public health department were shown varieties of foods, filters, ventilating grates, invalid bedsteads, earth closets, etc.

The Association was called to order at 3 o'clock, P. M. Some twelve years had elapsed since it had before met in Ireland; (only once before), at that time under the presidency of the late Wm. Stokes. Its membership then amounted to 3,000; it now includes over 7,800 names. Dr. O'Connor, of Cork, Senior Medical Professor of the Queen's College, is the President for the year. In his annual address he gave thanks, in fitting terms, for the honor of being elected to the high position he held. "The key-stone of an arch is an important part of the structure, solely because by its position it establishes an equilibrium between opposing forces. The chairman of a meeting exhibits an equally passive resistance in moderating the expression of contradictory opinions and preserving the calm necessary for the discussion of great subjects." He referred to the beautiful surroundings of Cork, its mild climate, its improved—and improving—sanitary condition over what it was many years ago, "exemplified in the low death-rate, and by the gradual disappearance of typhus, which, in the last century, appeared every seven years; in the early part of this century every ten; and now, since the famine fever, we have had but one outbreak of any severity, and that nearly fifteen years since,"—due to the admirable supply of pure water, and an extensive system of

sewerage. There had been great improvement, too, in the social and intellectual condition of the people; now, 9,000 children receive gratuitous education, a school of design is supported by taxation, also, very largely, a musical academy; within a few years ten asylums have been established, and five new hospitals opened.

In referring to the fact that the progress of exact medicine had not been very great during the past year, he said: "We are not to reject what is useful because of the garb in which it is presented to us. Valuable facts may emanate from an humble source. All knowledge seems to be but a fragment of truth beyond our reach. The limited nature of our powers of observation, and the vastness of the fields for discovery, will forever furnish fresh objects to stimulate the human mind and preserve it from stagnation, which is equally destructive of mental and physical energy. We work in different fields; some making original investigations in the laboratory, others observing facts at the bedside, all valuable, all contributing to the better understanding of disease, its prevention and cure. Rationalism enlightens empiricism, and enlightened empiricism is a check—a drag-chain on hasty theorizing—from which medicine has suffered throughout its entire history. There are many diseases entirely under the control of medicines, others only partially and indirectly, and a third class—zymotic diseases, in which we can only apply our treatment to the cure of symptoms and regulation of functions, leaving to nature the task of bringing the disease to a favorable issue. I believe that all attempts to cut short these diseases are fruitless or injurious. In the early part of this century a different opinion prevailed, and attempts were made to arrest fever by strong purgations and bleeding. This violent treatment was soon discontinued, but there are signs of a return to the old heroic treatment, for in a work of the highest repute, it is recommended to begin treatment of typhoid fever with four doses of calomel, of eight grains each, six cold baths in 24 hours, 23 to 45 grains of quinine, to be given frequently, and 22 grains of digitalis as an ordinary dose. We walk in darkness with slow and cautious step, but here where we are utterly ignorant of the processes by which the poison is eliminated from the system, we are recommended to give medicines which would test the constitution of one in perfect health. Happily, confidence in the curative powers of nature in this class of diseases too generally prevail to adopt such heroic

treatment. Creative power did not send the finished work—human body—adrift to combat with destructive forces without pre-arrangement for reparation of injury, internal as well as external, fever as well as fractured limb. That physician must be blind who does not see beyond the darkness a clear light, showing him that all nature has been conceived and formed in beauty and order, the result of divine purpose, directed by divine benevolence. “Public hygiene may be controlled by legislative enactments, but *personal hygiene* is at the discretion of the individual. The physician, in his private consultations, has the power of giving advice, and thus accomplishing much of good. * * * * “In years gone by, the physician asserted the speciality of his calling by pretentious peculiarity of dress. This generation does not tolerate class distinctions of this nature. Still, there is a dignity without pomp; a dignity associated with humility and simplicity of character, which the physician should possess, making him ever feel that society and his profession have a claim on his conduct and his actions. His ministrations to the poor, in private, in dispensaries and in hospitals, if he would only *spiritualize his motives*, would raise him to the highest dignity attainable by humanity. Unless the breast be kept warm by sympathy, familiarity with suffering will make it hardened, and the physician become a skillful machine, deprived of all moral enjoyment in his actions”

The address was replete with noble thought and sound advice, listened to with interest, and was frequently and warmly applauded.

The Report of the Council showed an increase of membership during the year of 650, financial receipts for the same period, \$62,000.00, with a balance on hand of \$4,000.00.

The *British Medical Journal*, the weekly organ of the Association, is hereafter to be printed by the Association, the necessary type and accessories having been purchased for the purpose. The Journal has been increased in size, and is presented in new form, with cut edges. Its circulation is each year becoming more satisfactory.—The principle of *detention of the habitual drunkard* has become a law. Those who voluntarily submit themselves to its provisions may be ultimately restored to a condition which fits them for again mingling in society.—Hospital out-door and in-door reform measures have been set on foot with hopes of speedy action. Medical reform measures are being urged on Parliament in the demand for the establish-

ment, in each division of the kingdom, of a single door of entrance into the profession of medicine, and for the recognition of the right of the medical profession to a voice in the management of its own affairs, and the shaping of its future destinies. An inquiry has been made into the causes that prevent sufficiently eligible candidates from coming forward for the Army Medical Department. No system of admission which excludes fair and open competition will ever be satisfactory to the bulk of the profession or to the public.

On the evening of the first day a reception was held at the Queen's College, at which two thousand persons were present, including the *élite* of the city and county, and one of the members was justified in saying "that he was amazed with the prettiness of the Cork ladies." Military bands were in attendance, and the grounds were illuminated with the electric light, the process of which was explained by Mr. Berly.

SECOND DAY.—General session convened at 11 o'clock. Cambridge was chosen as the place of meeting for next year—1880, and Professor Humphrey was elected President.

Dr. Alfred Hudson, of Dublin, read an address on Medicine, in which he reviewed the early history of medical progress, and dwelt at length on the work done by the celebrated Laennec, whose views he contrasted with those of Niemeyer. Evidently Dr. Hudson is a disciple of the former.

Dr. Gallard, of France, addressed the meeting in French, and presented a number of his works to the Association.

THE SECTION ON PUBLIC MEDICINE met at 2 P. M., and discussed very fully the "influence of drinking water in originating and propagating enteric fever, diarrhœa, diphtheria, and scarlet fever." Dr. Andrew Fergus, of Glasgow, showed that in his native city, since the introduction of pure water, there had been no cholera, and there had been a marked diminution of diphtheria. He cited a number of cases coming under his own observation, of typhoid fever and diphtheria traceable to impure water. "There are, however, other causes for the disease in some cases."

Dr. Alfred Carpenter said that if an enteric germ found admission into a pure water supply, it lost its vitality, and second, that there was a limit to the distance which contagion might be transmitted under ground. Filtration would not alter the contagious nature of the particles, neither was microscopical or chemical analysis able to prove the absence of such contagious

particles. He pointed out that two causes were generally at work in the establishment of an epidemic of enteric fever. First, the house of the victim was exposed to sewage contamination, and second, that the water services were in immediate communication with the sewage system, by means of which an interchange of material took place, and thus typhoid germs gained admission. Germs of typhoid would abort if the constitution in which they are planted has not been reduced in power by exposure to sewer contamination, or to repeated doses of morbid matter. With perfect ventilation of sewers, a pure water supply, and complete separation between the sewers and water services, no general visitation of enteric fever could take place. In an epidemic of enteric fever in 1865, the germs had been communicated through milk, yet the predisposing causes had existed in defective sanitary arrangements.

Dr. Norman Kerr enumerated numerous cases in which the originating cause had been contaminated water. He had seen in one family, at the same time, one member struck down by scarlatina, a second by diphtheria, a third by diarrhœa, and a fourth and fifth by slight sore throat, and a sixth by erysipelas; all traceable to impure drinking water. The poison may be the same in these different diseases, but the physical state of the individual constitution, or some idiosyncrasy of susceptibility, or some differential surrounding condition, is the factor in determining the special form of ailment the person may assume in any special case.

Dr. Ballard said that no case of enteric fever occurred without the entering into the body of a specific contagion, separate and distinct from what is called filth.

Dr. Notter said that the presence of plants or animals in drinking water was no evidence of impurity. On the contrary, the highest forms are a favorable sign—living cyclops are seldom or never found in bad water. There were certain forms of life associated with bad water; these should be carefully sought for. There was a remarkable immunity from animal life in highly ferruginous water; thus perhaps the advantage of spongy iron as a filtering medium. The separation of diseased germs would seem to baffle our powers of chemical elimination, but we are able to arrive at some secondary conclusion, such as albuminoid ammonia.

Surgeon General Crawford said that he had seen cases of epidemics of typhoid fever that were not attributable to impure

water. Water alone was not the cause in spreading the disease in all cases.

Dr. Littlejohn's experience in Edinburgh confirmed the last speaker. The microscope would be found of importance in tracing the cause of the disease.

Dr. Grimshaw, the chairman, regretted that the relative powers of hard and soft water in carrying particles of the disease had not been investigated. He cited two cases of typhoid fever where the source of contamination was gas which had passed from traps and been preserved in exposed cisterns.

THE SECTION ON MEDICINE was presided over by Dr. Andrew Clark.

Dr. Henry Bennett read a paper on "the benefit of mountain air in the cure of phthisis." The cure of this disease is not due to altitude or the fall of barometrical pressure, nor to cold or dry air, but to a temperature ranging from 55°F. to 67°F., and the observance within this range of strict hygienic laws, such as the continuous exposure of a free current of air.

Dr. Allbutt contended that there was something in one climate over another, and that something was the presence of antiseptic air. There is no phthisis in Iceland, though so very cold, nor in the steppes of Tartary, though their situation is so very low.

"Inebriety a disease."—Dr. Beard said that Americans so regarded it, and treated it as one of the class of nervous diseases, having established institutions for the purpose, which had demonstrated the soundness of those principles.

A NEW BLOOD CORPUSCLE.—Dr. Norris gave a public demonstration to prove that he had found a third corpuscle in the blood, which was bi-concave and possessed a high refractive index. By means of the lime light and a series of photographs he traced minutely the various characters, both chemical and physical, which the new corpuscle assumed in health and disease. This corpuscle was the essential factor in the formation of fibrine.

THE CITIZEN'S CONVERSAZIONE.—In the evening an entertainment was given at the Theatre Royal by the Mayor, Corporation, and citizens of Cork, which was most elaborate in every particular. A large buffet offered refreshments for the inner man; objects of antiquarian and numismatic interest, china, the telephone and microphone, and a most charming picture gallery

by home artists, assisted to fill up the time until the dancing commenced.

THIRD DAY.—General session convened at 10 A. M. The Medical Reform Committee reported at length, and were re-appointed.

The gold medal of the British Medical Association for distinguished merit, was unanimously voted to Surgeon-Major Reynolds, in consideration of the remarkable coolness, intelligence and tact evinced by him under circumstances of great danger while in service in South Africa.

Surgeon Wheeler, of Dublin, exhibited a splint for the treatment of fractures of the patella, which gave, as results of use, bony union.

Dr. Austin Meldon, of Dublin, read a paper on the Intravenous Injection of Milk, showing that by this operation, adopted when every other means had failed and when the patient had only a few hours to live, results were had as follows: Out of twenty-two cases reported, eight had been perfectly cured; and in ten, life had been considerably lengthened. Dr. M. had performed the operation in five cases; two cured, three much improved.

Dr. Robert McDonnell read a paper on Transfusion of Blood.

At the meeting of the SECTION ON PUBLIC MEDICINE, Dr. Grimshaw, the president, opened with an address on "the work the Association had accomplished for the public welfare." The Section had been established in 1868, under the presidency of Mr. John Simon. At the present time there was not any department of the State whose special duty it was to look after the Public Health, so that it was incumbent on that and kindred associations to take care of the interests of the public in sanitary and professional matters. Through the labors of the Association the registration of births, deaths and disease had been greatly advanced, especially in England, but they had not received the co-operation of Government that might have been expected. In Ireland much had been done, but until the laws were made more perfect a complete registration of deaths could not be carried out. He reviewed what had been done in the relation of the Poor Law to medicine and the profession; the abuse of hospital relief by unfit persons; preventing the spread of quackery; and improving the status of the profession. The general government did not do what they could and ought in these matters, and he advised that high-handed measures should be taken—that the authorities should be coerced into efficiency.

He advised the establishment of a State Board to examine all the licentiates and graduates of the medical authorities, before registering them as legally qualified medical practitioners. In regard to sanitary legislation and administration, the most serious defect "in these countries" was the want of an efficient central authority for each division of the kingdom, under the direction of a Minister of Health, responsible to Parliament. So long as the public health was dealt with as a small portion of the poor law and local government, so long would it remain neglected. In Ireland it was not only that there was but a very small staff for occasional inspection in sanitary matters, as in England, but there was absolutely none at all. Suitably qualified medical officers of health should be provided to undertake the duties of a soundly-constituted sanitary organization; and it must be regretted that none of the medical corporations had as yet provided for granting qualifications in State medicine, and the government had not required a special knowledge of State medicine from those who were candidates for public medical appointments in which such a knowledge was essential. Much had been done by the Association by urging the establishment of laws for the general vaccination of the people, but more remained to be done, especially in Ireland.

Dr. Grimshaw dwelt at much length on "the unsatisfactory condition of the dwellings of the working classes," and regretted that the law on the subject was permissive and voluntary, and not undertaken by constituted authorities. The legislation on "baby farming" had not fulfilled all the objects for which it was originally passed. How few of the reforms that had been suggested from time to time had been carried out; but it was their duty to persevere.

The subject, How to Deal with Convalescents from Acute Infectious Diseases, whether by isolation or otherwise, so as to limit the spread of the disease, was very fully discussed. The conclusion arrived at was that convalescent homes should be built and regulated on the plan of private lunatic asylums.

Dr. Tweedy, of Dublin, read a paper on "The Causes of Death in Ireland as compared with England," and showed that the excessive death-rate of the former was due to constitutional and not to zymotic diseases. Consumption was one of the principal causes of death, and this was in a measure due to defective sanitation in various forms, such as impure air, over-crowding, bad drainage, and insufficient food and clothing. Measures are

being adopted towards the amelioration of these evils in Irish towns.

Dr. Chapman read a paper on "The Sanitary Arrangement of Dwelling Houses," devoted chiefly to the means of preventing the escape of sewage-gas into houses, and advocating that drains, as far as possible, should not be brought into houses.

Papers were presented by Dr. S. Bonnafont, of Paris, on "Reflections on a great scheme for Improving the Sanitary Condition of Unhealthy Countries, having in view the prevalence of epidemics, the production of the soil, the health and prosperity of the populations;" and, Rogers on "Poor Law Medical Relief in the United Kingdom."

Adjourned.

The ANNUAL DINNER, which took place on the evening of the 7th, was largely attended, some 300 being present, among whom were most of the foreign guests. Toasts, happy sentiments and good cheer prevailed to the enjoyment of all.

FOURTH DAY.—Dr. McCall Anderson read a paper,¹ prepared by Dr. Fergus (unavoidably absent), on Preventive or State Medicine, for which a vote of thanks was unanimously passed.

The report of the "Hospital Out-patient Reform Committee" was received, and the opinion expressed that there was a prospect of some practical action being soon taken to remedy the evils in regard to the system of relief for out-door patients of the large hospitals and infirmaries of the kingdom—a reform that would improve the position of the medical officers and benefit the public.

A committee was appointed to consider and report whether it would be desirable to adopt the metric system. Also, a committee to consider the question of providing convalescent homes in cases of infectious disease.

After the passage of a comprehensive vote of thanks the Association adjourned.

A GARDEN PARTY was given in the beautiful grounds of the Queen's College during the day, August 8th, and a grand concert in the evening, "the most brilliant and successful that had ever taken place."

The round of entertainments terminated Saturday, the 9th, by excursions to Killarney, Blackwater, Blarney Castle, etc.

¹ See page 301 present number of the *COURIER* for an abstract of it.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Stated Meeting. June 19, 1879. Dr. L. Ch. Boisliniere, Vice President, in the Chair.

SPECULA AND DILATORS FOR THE FEMALE URETHRA.

Dr. Ford exhibited a set of cylindrical instruments, silvered specula, slit like Ashton's anal speculum, for making examinations of the female urethra, and said: I have been using these instruments since August, 1876, when I had them made by Aloe & Hernstein, of this city, for employment in a case of urethral caruncle. I found myself obliged to devise some more accurate and easy way of exploring the female urethra than was in our possession at that time. Finding nothing on the market but a little conical speculum, with a fenestrum in it, which was perfectly useless for anything like accurate observation, I determined consequently to modify Ashton's well-known anal speculum, for service in the female urethra, and had the instruments made, which I show, and have constantly used ever since. What we want in a proper instrument of the kind, is, a slit at the opening of the urethra, where caruncles are most developed; but besides this, it is necessary to explore the whole of the interior of the urethra. The instrument should not be more than two inches long. They are not dilators, but merely specula. In the case in which I first used them, there was a large and very painful caruncle at the meatus, and the entire length of the urethra was studded with similar formations. I excised these growths through the slits in the specula, cauterizing with nitric acid, and finally applying Byrne's straight platinum cautery, which was passed up into the urethra and brought out at a white heat. The case was the most difficult one of the sort I ever had to treat, and, although nearly well now, is not entirely so. Simon's plan of dilating the urethra with graduated plugs is an excellent one, but intended only for intra-vesical exploration. With the dilator I employ in conjunction with

these specula, we can tell exactly how much we dilate, and after dilatation is effected to a sufficient extent, a speculum of suitable size is introduced. We have here the largest, about two centimetres in diameter. The dilator is a three-bladed form, original with Weiss, of London, and is used to effect the necessary dilatation before introducing the specula. I merely allude to this matter before the society, to affirm expressly that I have used these instruments ever since August, 1876, first doing so in company with Dr. P. G. Robinson, of this city, and since then in consultation with other gentlemen several times. I notice that Dr. Reeves Jackson, of Chicago, read a paper before the American Gynecological Society, on June 1st, 1877, describing a speculum very similar to my own, and that Dr. Boyd also read a paper before the Section of Obstetrics of the American Medical Association, on June 5th, 1877, likewise describing a similar instrument. The specula which I present, and which have been pretty widely sold by the makers since August, 1876, are intended both for diagnostic and for operative purposes, the slits being wide enough for the use of small instruments, such as curettes, hooks and small knives, or even scissors. With the dilator, which I also present, I dilate the urethra in from three to five minutes, to a sufficient extent to admit the largest speculum necessary. Not generally using an anæsthetic, and occasioning no unbearable pain, and without previous incisions; I have never seen anything like incontinence resulting from methods of dilatation such as I have described and practiced.

Dr. Barret (to *Dr. Ford*): Don't you find, in withdrawing the speculum, that the mucous membrane gets in the fenestrum?

Dr. Ford: Not in the urethra; in the anus it does. Within the course of from three to five minutes I have dilated the urethra to the extent of half an inch in diameter, without chloroform and without any preliminary.

Dr. Boisliniere: Could you after that introduce your finger into the bladder?

Dr. Ford: O, yes; but I only did that once. I am careful not to pass the limits of the size I want.

Dr. Moses: The use of the finger is always more or less sudden, not gradual. I recollect on one occasion I had a case of pelvic cellulitis follow it.

Dr. Barret: It requires a great deal of dilatation to dilate

the urethra to a sufficient extent to produce even a temporary incontinence of urine.

Dr. Moses: I think that depends very much on the rapidity of the dilatation, too great suddenness rupturing instead of stretching the sphincter vesicæ.

Dr. Barret: My own dilatation has always been rapid, and I never have produced incontinence, even when I desired to do it.

ECLAMPTOID SYMPTOMS.—MANAGEMENT OF CORD WHEN
AROUND NECK.

Dr. Ford: The case I desire to report is interesting, because there are some points about it that are unusual. The lady was first delivered about six years ago, and she had an attack of puerperal convulsions, and at every succeeding labor there has been a simulation of that attack, not complete, but there has been the same disposition towards an affection of that kind. It seems to me it is the same thing, and her attendant physician is of the same opinion. For instance, almost immediately after the labor she has spasms in the back of the neck; her head is violently thrown backwards, and there are cramps in the shoulders, and a persistent pain obviously in the muscles of the neck—the splenius and trapezius. This pain comes on almost immediately after labor, and it has occurred with varying intensity in almost every labor she has had. When I was called to see her, as I learned she had also some disposition toward post-partem hæmorrhage, I had a basin full of ice placed near me within reach, and a pitcher full of ice-water. Her attendant physician has been in the habit of administering both ether and chloroform, and she insists upon it. He gives her a very little. On this last occasion she insisted on the chloroform, and I determined to give it very carefully indeed, being a believer in its relaxing powers on the uterus; and, knowing that fact, I had to give it very carefully. When I first saw her the head was in the excavation, and I could just get her to bed before the stronger pains came on. She insisted then on having a little chloroform. I gave it very cautiously indeed, but found it delayed the pains, and evidently was acting injuriously; the pains became not only delayed, but weakened so distinctly that gradually, as the labor wore on, I withheld the chloroform more and more, notwithstanding her cries, which could be heard all

over the neighborhood. Finally, as the head passed out, I noticed that the cord was around the neck of the child. The child was blue in the face; a few moments passed and it did not respire, so I gently pressed the uterus, and tried to aid the advance by expression. I determined to bring it away as soon as I could liberate the cord, but in that time the placenta was pulled on and slightly detached, the cord being very short, and with the birth of the child there came a terrible gush of hæmorrhage. I immediately gave a teaspoonful of ergot, and I put a piece of ice about four inches long into the uterine cavity, made frictions, expressed the placenta and detached it at once, and relied on the frictions and ice to close the uterus. The first gush of hæmorrhage ran over the bed, but she had none after that. I was told by the attendant physician, whom I afterward saw, that in every case the child was born with the cord around its neck, and in every case there had been danger of post-partem hæmorrhage, and he had been obliged on one occasion to give ergot, but he gave it without extracting the placenta. Of course under such circumstances the uterus contracted on the placenta and retained it. I did not give ergot in this case, for that reason, until after I had removed the placenta. Immediately after labor, within five minutes, she was taken with the pain in her neck, accompanied by sobbing—a convulsive action of the diaphragm; and it continued for four or five days, pretty much the same thing, in spite of all I could do—counter-irritants, chloroform, internal remedies of various kinds, opium and morphine under the skin. The only thing that seemed beneficial, was a little Dover's powder given every night and allowed to work itself off, and plenty of quinine. I am under the impression that this attack was eclamptoid, the residuum of the primary attack which she formerly had. There was no hysteria whatever. There was a great deal of pain, and pain on pressure due to spasm of the muscles.

Dr. Prewitt: What did you do for the cord around the neck?

Dr. Ford: Turned it right over the head.

Dr. Moses: My practice has been always to endeavor to pull the placental side of the cord, withdraw it a little and allow the shoulders and body to slip through.

Dr. Boisliniere: What was the health of the patient during the intervals of her pregnancy? Any kidney disease?

Dr. Ford: No, sir; she enjoyed very good health.

Dr. Prewitt: I asked Dr. Ford what he did with the cord because I have always, like Dr. Moses, been accustomed to loosen the cord and slip it over the shoulders, and I never found a case where I was not able to do that. On the other hand, it strikes me it would require a considerable pull on the cord to pull it over the head.

Dr. Ford: I also do as you describe when it is practicable, but in some cases, where the twist is of a peculiar character, it seems almost impossible to pull it over the body.

Dr. Barret: I do not see why it requires great force to slip the cord over the child's head. It would require no greater length in the cord to slip it over the head, than the cord possessed in the first place when it got there; and in the second place some advantage would be gained by the shortening of the uterus—the uterus having contracted down, and its length having been decreased by the advance of the head and body of the child, would give an additional length, so it seems to me there would be no great difficulty in slipping it over the head.

Dr. Moses: It depends entirely on the length of the cord.

Dr. Barret: I do not see why it would require more in the second place than in the first.

Dr. Moses: In the act of birth, as the child passes through the canal, the extra length of the cord is entirely taken up, as it was in this case.

Dr. Engelmann: One thing you forget in the discussion entirely, is that this complication generally takes place at a much earlier stage of pregnancy; while at full term, the average length of the cord is but little more than the length of the child, in the earlier months it is two, three, or four times as long as the child. As pregnancy proceeds, the relation between the length of the cord and the child is much altered.

Dr. Boisliniere: In connection with this subject I will say that my practice is a little different. There are cases where in difficult labors (some of you have seen that especially when the forceps have been used on account of the large size of the child's head), when the head is brought to the arch of the pubis, it is evident the child will perish unless it gets air; if he does not breathe in two or three minutes, you have a dead child. Suppose the child in that position and the cord around the child's neck once or twice—in a case like that you must take a pair of scissors and cut the cord once or twice, above the child's head

before the birth is completed, and tie it after the child is born. I have saved a good many children in that condition when the face was swollen and black, evidently asphyxiated. I will say, like Dr. Budin, it is better not to cut the cord, as a general rule, until it ceases to pulsate, because, by cutting it you deprive the child of three or four ounces of its weight, as a German physician has also proven. But Budin goes too far, I think. He says, even in cases where the child is born blue and asphyxiated, he does not cut the cord; he waits until the child breathes. I do not agree with him there. In those cases we see, after section of the cord, by removing the tension, the child will immediately begin to cry, and under such circumstances my practice is entirely the opposite to that of Budin. I immediately cut the cord and relieve the asphyxia.

Dr. Prewitt: No danger of the child bleeding to death?

Dr. Boisliniere: O none at all.

Dr. Engelmann: Is not that extreme practice?

Dr. Boisliniere: Yes, but it is necessary in many cases.

Dr. Engelmann: But when you can slip the cord?

Dr. Boisliniere: Of course, then always do so. Prolong the flexion and then liberate the head. I would do so, but when extension has begun, I wait till the cord is in between the head and arch of the pubis; the child is asphyxiated; the labor arrested; at that point you have done with your forceps what forceps can do, and the child will perish if you do not do something to relieve it.

Dr. Maughs: I expect Dr. Prewitt has never met with one of those cases in which it is impossible to slip it over the shoulders; he has never met with such cases as Dr. Boisliniere has just alluded to. There are cases in which the head is partially delivered through the vulva, and the cord is pressed against the sub-pubic ligament, and the shoulders are still within the pelvis—it would be impossible in those cases to get at the shoulders, because they have not come down, because the cord is too short to permit them to do so. It is usually supposed in cases where the cord is around the neck, that it is because it is unusually long. But such is not the case at all. I have seen cases in which the cord could not be drawn down, and at the time it had drawn tightly, indented itself in the child's neck, and you could not pull it down. I had a most instructive case in that respect, demonstrating as a positive fact that the cord does not have to

be of unusual length, and that the child in some cases passes through the loop of the cord, while it is still imperfect in its development, when the relative length of the cord is much greater than it is at maturity. I was called some three or four years ago by Dr. Moore to see a patient who had been for hours in labor, with the head on the perineum, with the expectation at every pain that the head would be delivered. I was sent for, and applied the forceps, but in pulling down the head I saw there was something unusual—abundant room in the inferior strait and a relaxed condition of the soft parts; there was no especial difficulty, but there was something pulling back the head. I pulled it down, pulled down the uterus into the superior strait. Well, without pulling the head through the vulva, simply pulling the occiput into the vulva where I could feel the cord under the sub-pubic ligament, the shoulders in the distance—no possibility of pulling the cord—the child's face was perfectly blue—the child was dead, and the cord was indented in it, as though you had tied a string and drawn it tightly. Without any loss of time I cut the cord; you could not pull it at all. I cut the cord and delivered the child without any difficulty at all, without removing the forceps. The face of the child from the neck was as black as if it had been strangled to death after it had been born. The cord beyond the neck was only about four inches, had simply reached along down its back to the nates, and the placenta was attached to the fundus of the uterus. The entire length of the cord was only about fifteen inches. The pains were sufficiently strong to draw the cord in a strong noose around the child's neck. In several cases I have found it impossible to loosen the cord. It don't make any difference whether you slip it over the head or over the shoulders; if the cord is long enough to loosen it you do not have to cut it, but it is in those cases where you cannot loosen it.

Dr. Barret: I did not mean to imply, in the remarks I made, that there were not such cases as Dr. Maughs has detailed, nor did I mean to imply that the cord might not get around the neck of the child in its earliest stages; but what I did mean to say was, that the cord generally gets around the neck, in cases we ordinarily meet with, simply from the effect of a long cord falling around in the form of a loop, through which the child dies in the majority of cases. If the cord is long there is no trouble whatever in slipping it over the child's head.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 23, 1879. DR. E. MONTGOMERY in the Chair.

FISSURE OF THE ANUS.

Dr. Gregory: Fissure of the anus, as it has come under my observation, is a peculiar lesion, a sort of neuralgic ulcer. It is quite common, and it is nearly always found in that portion of the rectum corresponding to the os coccygis. And then it is recognized by a little tit-like process—when you pull the rectum apart to look at it you will see a little red tubercle, and this wart-like process overlying the lesion. To one of practiced eye the appearance of this little tit-like process is sufficient without seeing the other lesion. And then it is peculiar, so far as my observation is concerned, in the fact that I never cured one except by doing some violence to the sphincter. I have adopted two methods of treatment—one by the use of the knife, and the other by simply paralyzing the sphincter by extreme dilatation. This latter method I have practiced very often, and I do not know that I have ever failed to effect a cure. I introduce both thumbs into the anus and press them apart until they are arrested by the bones of the true pelvis—by the rami of the ischium. Very frequently I have put the parts upon the stretch, and with the knife divided the mucous membrane and the superficial fibres of the sphincter which lie directly beneath. I do not aim to cut through the entire sphincter, but simply to divide some of the superficial fibres immediately at the base of the ulcer.

Dr. Montgomery: How would the galvanic cautery do?

Dr. Gregory: I have never tried that. I have tried cauterization. I have tried soothing applications, but never succeeded except by doing violence to the sphincter. I have frequently seen people who have been martyrs to this trouble for months, and I have dilated the sphincter violently, as I have indicated, on one day, and have met the same persons the next, never afterwards complaining of the local trouble. I have often been told by patients that they feared they would suffer very much

when the bowels moved for the first time, but my observation is that they never suffer any more after the operation.

The *symptoms* are very characteristic: whenever the bowels move there is a peculiar burning pain which is described as most intense and agonizing in its character, and which lasts from a few minutes to several hours.

Dr. Todd: Is there no inconvenience resulting from this violent stretching of the sphincter?

Dr. Gregory: I have never seen any inconvenience from it. I have in a number of instances dilated the sphincter until I thought the rectum was prolapsed, and yet the parts returned, and there was no further trouble whatever.

Dr. Steele: Is it fissure of the anus or the rectum that is referred to?

Dr. Gregory: It is within the anus, just within the anal—the external sphincter. Some two months ago I dilated the sphincter in a case of malignant disease of the rectum; removing a carcinomatous growth above the sphincter, as big as a hen's egg, almost filling the rectum, yet, by simply dilating the sphincter, the mass came down within easy reach.

Dr. Spencer: Does dilatation afford permanent relief?

Dr. Gregory: Yes. I do not recall a single instance where it did not.

Dr. Carson: In the case of a patient presented at the clinic, the tit-like process already referred to was observable. He had suffered agonies every time he went to stool, and greatly dreaded the act. Without putting him under chloroform I dilated, tearing through the fissure and sphincter, which I think generally occurs. The next time he returned he looked like another man, so great had been his relief, and he stated that he had had no trouble whatever, and from the time that the operation was performed, he went to stool regularly and suffered no inconvenience whatever.

Dr. Gregory: I do not always chloroform my patients. I take advantage of the patient sometimes, and at once dilate or cut without telling him, instead of going through the formality of assigning a time and giving chloroform. I do the thing quickly—a scream, and it is all over. I find the affection most frequent in women.

Dr. Montgomery: In taking a superficial view of the subject I should think that dilating the sphincters would produce inconvenience.

Dr. Gregory: I never have heard any complaint of it. In regard to this dilatation of the sphincters, for years I have been in the habit of dilating the female urethra ruthlessly; and I have never seen any ill-consequences of it. I recollect in the early period of my professional career, in making a vaginal examination one day, I got my finger in a very narrow place, and the woman remarked it. I had my finger in the urethra, and not in the vagina. From that time to the present, whenever I want to explore the female bladder I promptly introduce my finger, and I have never met with a case in which I could not do this. Sometimes I first take a pair of common dressing forceps and dilate the urethra a little. Some two weeks ago, in New York, Dr. Byrne, the inventor of a galvano-cautery battery, wished me to see a case of cystitis, for the relief of which he intended to make a vesico-vaginal fistula, with one of the red-hot galvano-cautery knives. He said he had occasionally dilated the urethra in cystitis, but he had seen some ugly cases of incontinence resulting from it, and he had adopted his present plan. Several days after he performed the operation he told me the woman was doing well, and that after he had made this opening he got perfect drainage; he cleared out from the bladder a vast amount of precipitated material—salts. (In these cases there is sometimes a sacculated stone in consequence of this peculiar condition of the bladder. He subjected the bladder to a very extensive ablution). I mention the case in conjunction with the fact that whilst I have never found any trouble from dilating the urethra, he said that he had, and that is just the difference between two observers.

Dr. Todd: It is strange that the sphincter can endure such violence with impunity, when we know it is not the case with other muscles. If one of the muscles of the extremity is forcibly stretched, there will be a lame arm or leg for a time.

Dr. Gregory: Well, I guess in these cases, too, there is a little "lameness," for sometimes there has been an incontinence for a few days.

Dr. Moses: Fissure of the anus is especially interesting to any one dealing with diseases of women. I find it a very common condition, and oftentimes very painful and of long duration, particularly in women who are working and standing a great deal. I find it a very common thing in the charity clinic at the hospital, though it is often overlooked and the patient is

thought, by herself or the attendants, to be suffering from some neuralgic or uterine disease. I recall one case particularly—a lady who had been suffering for a long time with an increasing pain, which she referred not particularly to the anus, but to the generative apparatus generally. She had had local uterine treatment, and undergone all sorts of suffering, and when I saw her she had been confined to her bed and lounge for six consecutive weeks. A uterine fibroid was the only thing abnormal about her womb, but from the description of her suffering, I concluded to examine the anus, and found a fissure, which I operated upon by division with the bistoury and subsequent stretching, by which she was completely cured in the course of a day or two. Fissure has an injurious effect upon the nervous system, particularly in *nervous*, delicate females, where it brings on attacks of pain and general discomfort, increased by the persistent constipation, which is general on account of the dread of evacuation of the bowels; the appetite is lost, and the disease simulates a variety of other complaints and distracts the attention entirely from the real point of the disease, which is not always painful to the touch unless it be a touch that dilates. At the clinic I have frequently treated slight cases by the application of iodoform, by the persistent use of which I have in several instances effected a cure. Two or three cases I cured by the application of nitrate of silver. One case particularly, I recollect, of a gentleman in business, who objected to my using force. I went to his office on three different occasions, and gave him a thorough digging out with nitrate of silver, and succeeded in curing him. I was once a sufferer myself from the same cause. One application of nitrate of silver cured me.

Dr. Carson: Might not some of the fibres of the sphincter have been ruptured?

Dr. Todd: Do you think iodoform better than belladonna?

Dr. Steele: My experience is that a slight touch with the knife will not suffice in these cases. It requires a deep cut, from which I have never seen any bad results. I have noticed that the bladder sympathizes, and in the case of married women intercourse is exceedingly painful, almost impossible. Though constipation is the rule, yet I have known it where the bowels had been quite regular.

Dr. Ford: The two most common causes of fissure seem to be a disposition toward piles, and chronic constipation. This

latter, in women, is generally attendant upon uterine disorders, in association with that atony of the system which leads to diseases of the uterus, and especially to flexions. In such cases there is an accompanying constipation which sooner or later gives rise to sacculation of the lower bowel, in consequence of which hardened masses of fæces accumulate just within the sphincter, and are there retained. Such scybalous masses constitute a constant source of irritation, which excites reflex contraction of the sphincter, and thus still further increases the difficulty by the establishment of a vicious circle. Constipation thus leads to sphincterismus, which begets a difficulty in emptying the bowels. The consequent straining tears the mucous membrane, and the rents so made become ulcers. The relationship between these affections and diseases of the uterus is one which every one ought to bear in mind continually. As Dr. Moses has observed, they are very frequent associates of uterine disorder, but their symptoms are so masked by those due to the uterine trouble, that they are apt to escape the attention of the most practiced observers. The symptoms are referred to the uterus or vagina. I have seen the most obdurate vaginismus accompanying this sphincterismus. There may be two or three of these ulcers. I have also seen the condition of fissure associated with diffused ulceration of the lower part of the rectum. In a case which occurred a good many years ago, I tried dilatation to the tubera ischii at first, but was finally obliged to come to the knife, and ever since have preferred to divide the sphincter at once. I no longer trust to mere dilatation, in the great majority of cases. I have never found the knife to fail. When I employ it, I do so through a three-bladed speculum. I regard the kind of anal speculum used as an important matter. Ashton's speculum is of very little value. Where there is a great deal of ulceration, the introduction even of the finger is painful, and so also of Ashton's speculum. To withdraw this instrument, either a twisting motion is necessary, or a direct pull, which is very painful. For a good many years, I have consequently used a three-bladed dilator, from which an inch and a quarter of its length has been cut away. This is a very powerful instrument, and dilates the rectum well. After the expansion of the bowel, a sharp, slightly-curved bistoury is passed under the sphincter, and made to cut its way through, from without inwardly. I generally do this on the side of the

rectum, without regard to the site of the ulcer, afterward placing a strip of lint in the cut, sometimes dipped in a solution of perchloride of iron, as I have seen noteworthy hæmorrhage occasionally ensue after the operation, especially when the ulcer itself has been included in the cut. At the time of the operation, I usually touch the ulcers with nitrate of silver; afterward there is but very little treatment required, except to keep the bowels open. In looking over this subject recently, I find that Curling advocates the use of the knife in all cases; he says it is certain to effect a cure. Agnew takes the same view. The ulcers soon heal up, and, in my experience, have required little or no attention after the operation; in fact, there is nothing to do except to insert a piece of lint, and if the bowels do not move within twenty-four hours, to give a dose of castor oil. Curling advocates that the bowels be kept loose for a moderate length of time after the operation. In cases where there have been uterine symptoms, these disappear before long. Barnes has entered fully into the subject, in a series of articles published some time ago in the *Lancet*.

Dr. Moses: In those cases of ulcer above the sphincter, have you operated upon the ulcer directly?

Dr. Ford: I have cauterized with nitrate of silver, after division of the sphincter.

Dr. Moses: I recollect seeing a case of that sort in consultation. We finally cut the ulcer out entirely, and after that the cure was rapid.

Dr. Ford: I reported a case of that kind in 1874, where I divided the sphincter, in which there were six or eight deep and serpiginous ulcers, in a gouty subject; the condition was associated with stricture of the rectum higher up.

Dr. Kingsley: In some cases we find the fissures are eczema.

Dr. Moses: The fissure of eczema gets well by itself.

Dr. Ford: Very lately I had to operate in a case of fissure. I first dilated with the triangular speculum. The previous day the lady had taken a dose of castor oil, and she had likewise that day taken two successive enemata of soap suds. I consequently imagined that the bowel was clear, but nevertheless, on attempting to operate, found it filled with hardened fæces which filled the sacculated rectum. Not being able to examine the condition of the gut, or to operate, I was obliged to withdraw the speculum, and scoop out the fæcal masses with

my fingers. I then operated, and a week afterwards the sides of the gut were in apposition with each other, as they ought to be. I think it is very important to recollect that the retention of these hardened faecal masses has a great deal to do with the origin and perpetuation of the trouble.

Dr. Gregory: Do not these fissures occur at other portions of the body? I had a patient coming to the hospital for a long time who had a fissure of the nose—a little crack. Not obtaining relief from previous applications, I finally tore through the fissure, drawing the ala strongly open. I presume a cure was effected, as the patient never returned.

Dr. Kingsley: Do you not think the difficulty in the way of healing is in consequence of the constant contraction and relaxation?

Dr. Gregory: I have the idea that the same condition may be produced in any wound; that any wound may be made irritable simply by subjecting it to frequent motion. Rest in the treatment of injuries is the most important point. The part should be placed in a position of rest, so that it cannot injure itself, nor be subject to hurts from the outside; on the other hand, if it is placed in a position in which it is subject to additional hurts, it gets in an irritable, perverted condition, which may require weeks to cure.

The fact that these ulcers grow at a particular site is a very mysterious thing, it is hard to explain upon the theory that Dr. Ford gave. If there is any sphincterismus, I do not stretch, but cut. I had a case of that kind some time ago, and simply cut it; there was no necessity for dilation—it was over-lapped by the fringes of the mucous membrane. I excised all of them.

Dr. Carson: In most of the cases I have seen, these ulcers are well defined.

Dr. Hardaway: There is a condition which I believe simulates fissure of the anus, where there is a most intense pain on defecation, where fissures have been suspected, and a condition has been found, which Niemeyer calls periproctitis. Some years ago I had a case of that sort, in which the abscess was emptied into the rectum.

Dr. Ford: There are a great many affections of the rectum which are exceedingly painful—quite a long list of them; which even without ulceration give rise to more or less pain in defecation.

Dr. Todd: May not dyspepsia give rise to these fissures?

Dr. Gregory: Dr. Steele remarked that he had seen cases in which the bowels were perfectly natural. I think constipation is much more common than is generally believed. I am rarely consulted by a woman, for any disease whatever, that I do not find that she is habitually constipated.

Dr. Moses: I think cold and uncleanness are frequent causes of fissure.

Dr. Ford: The irritability of the lower part of the rectum reminds me of that of the bladder just within its neck, and of the stomach just within the pyloric orifice. Chronic irritations of these parts are sure to beget spasm of the muscles alluded to. I have seen in gynæcological practice a great many cases illustrating this, with regard to the rectum. In one case, in which the fundus of the uterus was tilted backwards, so as to press upon and continually irritate the bowel, an extraordinary amount of sphincterismus was present. In another case, the sphincterismus was due to the chafing of the rectal walls just within the sphincter, by the elongated neck of the uterus; the uterus at the same time hanging too low. This patient had suffered for two years from the trouble, and the knife cured her promptly, so far as the rectum was concerned; other appropriate measures having been instituted with respect to the uterus.

Dr. Kingsley: I have seen a few cases in children, and the only cause to which it could be attributed was constipation. A few days ago I saw a little girl who was troubled in this way, and the pain was so much dreaded that she avoided defecation. I used a stick of nitrate of silver, which afforded entire relief.

SELECTIONS.

PUERPERAL FEVER, AS IT OCCURRED AT THE ST.
LOUIS FEMALE HOSPITAL, MARCH, 1879.

BY P. V. SCHENCK, M. D., *Physician in charge.*

[From advanced sheets of Annual Report.]

During the month just past, we have had five cases and four deaths from puerperal fever, or as some would nomenclature it, puerperal septicæmia. The important point to be now considered is the prevention of a repetition of the disease. Dr. Playfair calls this the turning point. Dr. Pagot has said that in every case of erysipelas or the like, we ought to work until we discover the probable origin. We should have the strongest feeling that these diseases are not spontaneous or inevitable. Now, here, when this occurred, the same vigilance was being used—the same prophylactic injection of carbolic acid employed that had been successful during four years—cleanliness was exacted and carried out—the lying-in rooms had all just been thoroughly aired, cleaned, and the walls whitened. When the first case appeared it was immediately removed to a special ward kept for the purpose; the *interne* and nurses were changed, and patients delivered in other wards with appliances not heretofore used. Still the disease followed until five cases had occurred, when, for safety, all the women waiting confinement were removed to another institution, since which time no ill-consequences have followed. In this connection, I would also state that the last case confined here, in the most remote ward, was not affected. Now, it is of interest to study the factors of the disease.

1st. There is an intimate relation between puerperal fever and erysipelas, so much so that it has been called malignant puerperal erysipelas.

2d. There are epidemic influences which may cause it.

3d. It may be communicated by contagion by means of the hand of the accoucheur, the nurses, the appliances; it may be retained on the furniture, bedding, &c., of the lying-in room.

4th. Infection may be its determining cause, the poison is absorbed, and has the power of re-producing itself. This, by many, has been called a malarial influence, or, as it refers to hospitals, Giralaldi calls it nosocomial.

I can see in this outbreak a close connection with erysipelas. It is prevailing in the city, it is in most of the hospitals, and we have had an endemic erysipelatous influence. True, there has been no appearance of it in the lying-in rooms, but cases have occurred on all the other floors. This disease, though imported here, yet, there has been, during the last few months, a tendency in the lying-in wards to fever, more marked in some cases than others; there was an elevated temperature, accompanied by a quickened pulse. This was enough to raise our anxiety and increase our precautions; it was but the foreboding of the storm, the warning of impending danger, and belonged to that peculiar influence which we call epidemic, depending upon some particular constitution of the air, or the result of some mysterious condition of the atmosphere, which, when sifted down, will show an infectious or contagious origin. There is a strong tendency to connect the spread of puerperal fever with personal contact on the part of the accoucheur, and a midwife in England has been convicted on the ground that she had induced the disease among some of her patients, by conveying it on her person from some of those infected. Contagion is a mode by which diseases are transmitted from one person to another by mediate or immediate contact; this, some say, is the main cause, and thus is it transmitted. While there is no doubt that there is a form of puerperal-fever poison with contagious properties, capable of generating a most fatal disease, and while we know from sad experience, such as had at Vienna, that no person should go from performing a post-mortem to the lying-in room, yet, I do not believe that the puerperal attacks in hospitals are due to the principle of contagion alone. Puerperal fever is not a constant entity; it may be one thing or another distinct thing, and may present various characters. It is a disease that is not always communicated to the patient. Hewitt says it is a form of purulent infection. Playfair says it is due to the entrance into the blood of poisonous products. Barnes says it may be heterogenetic or auto-genetic. Schröder calls it auto-infection or hetero-infection. I do not believe that because a physician may be in attendance upon puerperal fever, he therefore becomes a

private pestilence,—as Meigs says, a poisoner of women for love of gain, or what is worse, stupidity. I believe, that with proper precaution he is safe in attending cases, and on the other hand, as Dr. Fordyce Barker has truly said, that all the personal care that can be taken, will not protect a patient from an overwhelming pernicious epidemic influence, and the obstetrician should not be held responsible for this, when he has used every means known to science to avoid the danger of being a medium of communicating disease. Surgeons tell us that a patient may be tolerant of decomposition, which may be set up by a wound in her own body, but will be intolerant of poison conveyed to her from any other wound. If this be true, it demonstrates how essential that the accoucher should keep his finger free from the hetero-genetic, or, as Schröder calls it, the hetero-infectious forms in which the virus is imported from without. I cannot be persuaded that a cleanly accoucher, and God forbid that there should be any other, carries on the end of his finger a contagious sting, more deadly than the asp's; that the point is a dart with more mortal cut than a spear, making a wound far more pointed than a serpent's fang, carrying a poison more fatal than an adder. I do not believe that, without the fore-warning of even a rattle, under the cloak of relieving, the touch of the obstetrician is death, his patient his victim.

Hospital or nosocomial malaria presents a subject which demands, to-day, the careful study of our schools of science. Some have questioned even the usefulness of hospitals, and others advocate the expensive procedure of pulling down and reconstructing them of such materials that this process can be repeated every few years. There are those again, such as Dr. Derby, who advocate one-story pavilions in preference to buildings of two or three stories, because they consider there is better ventilation. Upon what principle of natural philosophy this could be expected we are unable to see; it has arisen from the vulgar error of confounding quantity with quality; and supposing that if a patient has plenty of space, we need not concern ourselves about the qualities of the air. And yet, who ever heard of a person fearlessly exposing himself to marsh miasmata, in the belief that, having the whole heavens above and around him, he would be perfectly safe. Pavilion hospitals are not a success. They are not a perfect panacea against all evil, for experience has proven that they furnish no security

against the evils summed up in the word hospitalism. Hospitals are to facilitate the recovery of the sick and disabled. The essential for existence as such, is the aggregation of patients under such condition as that a relatively small number of medical attendants and nurses may suffice for their treatment and care.

Knowing the causes, how shall we free ourselves from them. Dr. Lusk states that the power which produces puerperal fever is not to be gotten rid of by childish expedients; long prayers and mutterings will not exorcise it. It cannot be caught away by the imp of witchcraft, nor done away with by charms and invocations, or even soothed by the fumigations of sorcery.

To overcome the erysipelitous associations, I would recommend that hereafter, under no circumstances, should cases of erysipelas be retained under this roof, but sent to some place outside provided therefor.

To prevent contagion, I would recommend that the confining wards be changed from second to third floor; that each patient be continued upon the bed in which she may be confined; that each ward containing puerperal patients be emptied twice a year and kept vacant for three or four weeks; that injections of carbolic acid be continued in cases after confinement; and that each patient have a glass tube assigned for individual use; and that upon the slightest tendency to the disease, an immediate change of interne and nurse be made; that all instruments, etc., used in a case diseased be either destroyed or subjected to high degree of heat. That these rules will not be experimental, has been clearly proven by Winkle, at Vienna.

How shall we free ourselves from hospital malaria? The answer is, by cleanliness, ventilation and disinfection.

Cleanliness—is a comprehensive term. It is a virtue in hospitals which it is criminal to assume if we possess it not. A dirty bed with clean counterpane is but a whitened sepulchre. Cleanliness and ventilation will speedily extinguish any epidemic.

Ventilation.—Puerperal diseases may be engendered by the atmosphere alone. Vitiating air in a hospital, especially in lying-in wards, is a fertile source of disease. There is a form of puerperal fever possessing eminently contagious properties not derived from miasm, but capable of generating a poisoned atmosphere. Organic substances in process of decomposition,

on being absorbed, vitiate the blood. Fluids pass from the cavity of the womb into its venous canals. Absorption is a great factor in this disease, and the empty vessels take up rapidly. The condition is ripe for the process. Dr. Hewitt goes so far as to say he never saw puerperal fever when there was not a relaxed condition. It would seem to need no prophet to tell us that, of all the buildings occupied by men and women, none require a more active ventilation than those devoted to the care of the sick. It is within the memory of the present generation that any special attention began to be given to the ventilation of hospitals. First, by Dr. DeSagulus, with his attic chimney heated by a fire, the foul air entering through holes in the ceiling; then his blowing-fan addition. Next, Marquis de Chabaums substituted for the fire heated cylinders. Then Sir Humphrey Davy made holes in the floor, to admit fresh air. And last, Dr. Reid, while experimenting on the ventilation of the new parliament buildings, introduced the tall chimney from the ground, heated by a perpetual fire. Into this all the foul-air flues were conducted, and thus forced ventilation received its birth. Ridge ventilation, as a substitute for forced, is a failure. It must, under the most favorable circumstances, be disturbed by wind, rain and snow; and whoever supposes that the frequent opening and closing of valves and required louver boards will be properly attended to, can have no practical acquaintance with nurses and attendants. While it is by no means certain to define the amount of ventilation which is necessary to prevent those untoward circumstances which may generate a miasm which will develop a puerperal fever; while it is also true that by no device of learning or of mechanical skill can the air of a hospital ward be made absolutely pure; yet the best and the most economical is forced ventilation, which we have here; and it has had much to do with our past exemption. But, though I know that general hospitals have limited means, and must observe the utmost frugality in all arrangements, and though it is true good ventilation costs money, yet I cannot avoid the recommendation, that the ventilation which here extends for three stories be continued to the fourth, and that ventilating pipes be run from the soil pipes, at each tier of water closets, to above the roof.

Disinfection.—This is the means employed to combat infection. It will never be perfectly done until we possess a complete

knowledge of the nature of infectious matter, that obscure something which is the seed of disease. There are two general classes: first, those which act by oxidation; second, those that arrest decomposition. The best for the first purpose is chlorine, which oxidizes the carbon and hydrogen. In the second, carbolic acid united, in a cheap form, with cresylic acid—the salts of iron, zinc and copper are also used.

I have disinfected each room with chlorine gas, have used freely throughout, carbolic acid, besides, unstintedly, the Giron-din disinfectant, which is composed of the sulphate of copper, zinc and lime, chloride of lime, with water and traces of acetic acid. This I shall in the future do at stated intervals. From the length of time the wards have now been empty, from the disinfection that has been pursued, and with the arrangements for the future, I feel it to be perfectly safe to again admit lying-in cases to this institution, feeling that we will re-enjoy the remarkable exemption which has been ours for nearly four years.

[After the date of this report, from which the above is extracted, puerperal fever broke out in the Institution to which the cases were transferred, six cases occurring, resulting in in three death. The pregnant cases remaining were then readmitted to the Female Hospital, and new cases also—since which time, eighty women have been delivered, yet there has been no sign of the disease returning.]

PREVENTIVE OR STATE MEDICINE.

BY DR. ANDREW FERGUS, PRESIDENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS, GLASGOW.

[From the Proceedings of the British Medical Association, August 8, 1879]

Mr. President:—Until a comparatively recent date, the public mind, both professional and lay, seemed thoroughly impressed with the idea that the whole function of medical men began and ended with the treatment, and, if possible, with the cure of the sick. This led to a two-fold evil: it first produced too strong a belief in drugs, and tended to make the profession degenerate into a mere trade, the success of which greatly depended on the quantity of drugs the unfortunate patient could

be got to swallow. The second evil was the neglect which it occasioned of all preventive medicine. It was now dawning on the present age, that medical science could possibly do a little more, and that, in addition to the treatment of disease, something might be done towards prevention. Thus what was supposed to be a new department of medical science sprang up; but he (Dr. Fergus) held that State medicine, as a very important branch of the profession, was not new, as under the old Mosaic Law, the medical officer of health was endowed with absolute authority to separate the sick from the healthy, and also, to isolate infected persons so completely as to prevent the disease from spreading further. We could then introduce many old laws of various nations, regarding the treatment of persons affected with leprosy, and it is an interesting question how all regulations as preventive measures were allowed to lapse, and not be applied to other diseases, such as small-pox, the most obvious, as well as the most repelling of all zymotics. Up to 1851 not a single death from diphtheria was registered, and in that year the deaths were two, per million. It did not spread rapidly, for in 1857 there were only 16 deaths, per million. It then rose very suddenly, and reached its maximum in 1859, when there were as many as 487 deaths, per million of the population. Since then it has fluctuated greatly, but has only once been under one hundred deaths per annum for every million of the population. Owing to the great good sanitarians have effected of late years, the deaths from fever have decreased, and especially typhus fever. We may attribute this diminution to the house accommodations, and the supervision of medical officers of health, and to water closets and earth closets, the latter of which we strongly advocate.

Another point to consider was the behavior, if we may so term it, of water and excretal matter. It is a popular opinion that water is a purifier, but in regard to these matters it is a mere shunter. It merely removes the nuisance from my door to deposit it somewhere else; it conveys organic refuse, but does not destroy it; it merely carries the nuisance from the city to make it a source of pollution in the river. Chemical science tells us that water itself, and by itself, has no purifying power; if you could shut up pure water and pure filth, (if we may use such a term), they would remain the same for all time, the only purifying element in the water being the small modicum of air

dissolved in it. In a shallow, brawling stream, this exercises a considerable power, as the water is constantly being re-aerated but very slight in a deep, sluggish stream, and hence the ready pollution of our rivers by organic refuse. I hope I shall not be misunderstood or considered as in any way defending the abounding abominations of the old privy system, when I say that the change to water-carriage was adopted without sufficient investigation, and with no adequate conception of the results which would follow. The system was hailed as a great boon both to comfort and decency, and it was at that time supposed that if these offensive matters were once out of sight there was an end of them, and no evil consequences were dreaded. But another most cogent reason against passing these offensive matters into our rivers, or the sea, is the consideration that such a course is directly opposed to the laws of nature, in the economy of which there is no such thing as waste. Earth is the original mother of all organized matter, and her law of rotation seems to be first plants from which animals draw their support. What is given off from animals should be restored to the earth again. We know that the carbonic acid so freely given off by animals is at once utilized for the growth of plants; but I believe if it had been left to our own disposal, the whole world would have been asphyxiated long ago. The other excretions of animals are equally necessary for the growth of the vegetable world. After years of further study and investigation, I can only adhere to my opinion expressed many years ago, that if it is true that organic poisons producing disease may pass from sewage; if it is true that cholera, diphtheria, typhoid fever and diarrhœa are traceable to taking into our systems, by air or water, the results of decomposition of human excreta; if it is true that these diseases, and others, from the same causes, swell our death-rate, and carry off some of the most valuable of our population, then gentlemen, I affirm that the only true sanitary solution of our difficulties is, that all excreta shall either be returned to the earth, or subjected to chemical action, rendering decomposition impossible; and I am furthermore sure that if a tithe of the time, skill, and ingenuity, and one-thousandth part of the money that have been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago.

There is not time to go into detail on other matters which

have an important bearing on the future health of the community; I must, therefore, content myself with a bare enumeration of some of them. The most important is the appointment of a minister of health, who ought to be non-political—*i. e.*: not removable with each change of government. Next in importance is the registration of disease; especially of all contagious diseases. This would be followed by the separation of the sick from the well, and the surveillance of the latter for a longer or shorter period, according to the nature of the case. Another point which I am inclined to consider as of almost equal importance with the two foregoing is, that the medical officers of health should devote the whole of their time to the duties of their office, and have no entanglement of private practice. A number of minor provisions must be made, amongst which may be mentioned proper inspection of food, dairies, shops in which food is sold, separation of them from dwellings, supervision of all places in which people are congregated, whether for work, education, or domestic life. In a word, we must not rest till our whole population have restored to them the birthright of our common humanity, *viz*: pure air, pure water, and sunlight free from smoke and noxious vapors. These may not all be attainable at once; but I am confident; from what I know of the noble band of men engaged in the different branches of public health, that there will soon be a considerable amelioration in the condition of the people. Our own profession has never been behindhand in unselfish labor and in personal sacrifice for the good of our fellow-men, and we can proudly look back and acknowledge that we inherit this, with other equally priceless gifts, from the founder of our art.

(Surgeon-General Crawford, in speaking to the subject said, with regard to the suggestion that earth should be substituted for water, he entirely agreed with Dr. Fergus; but in the efforts which had been made, and were still being made, to carry out that suggestion, he feared that the principle involved was likely to be endangered from the desire which had entered into the minds of engineers in this country to devise complicated machines to act as closets. He hoped the sanitarians of the country would see their way to advise the public to use this remedy in a simple and easy manner, and not encourage the use of a mechanical apparatus, the working of which was destructive of the principle which they wished to carry out.)

SURGICAL "WRINKLES."

Before the Philadelphia County Medical Society, Dr. John H. Packard brought out a few surgical points, which he facetiously designated "Wrinkles."

A Method of Making Superficial Incisions by which Scarring can be Avoided: In operating upon exposed parts, such as the face and hand, it is very desirable that it should be done so as to leave as little scar as possible. The procedure recommended is to hold the knife so as to *divide the skin obliquely*. Operations had been performed, when, after healing, the line of incision could not be found. Dr. Brinton had adopted the oblique incision in superficial operations and obtained marvellous results, even better than claimed by the author. It was suggested that the absence of cicatrix was due to the fact that, in oblique incision there was formed what might almost be called a subcutaneous wound, which favors healing with little scar. The surfaces brought together are large, and admit of perfect apposition. Again, the different layers in which the inodular tissue is deposited after oblique incision will not be in the same perpendicular plane as they are in the vertical incision.

A Suture-Needle with the Eye near the Point, for the purpose of introducing wire sutures. The difficulty in using wire arises principally from the tendency of the wire to "kink" in pulling through the tissues. This is entirely avoided by employing a needle with the eye near the point, the needle being pushed through the lips of the wound, the wire inserted into the eye and the needle withdrawn. It may be either set in a handle or held in a needle-carrying forceps, the latter being the most convenient form for the pocket-book.

An extremely small portion of the wire need be passed through the eye to cause it to be held securely while it follows the needle in its withdrawal from the wound. It can be used in drawing together the flaps of large stumps, as well as in the thin lips of a simple incised wound, the only difference being, that the thicker the tissue the longer the needle required.

Introducing the Ligature for Fistula in Ano. In the treatment of this affection, the ligature, and especially the elastic ligature, is a very satisfactory substitute for the cutting operation, being equally efficient and much less painful. Every one knows how

difficult it sometimes is, after introducing a probe through a fistula, to make it project from the anus, and how painful the procedure is for the patient. In order to obviate this, the probe is first introduced in the ordinary way through the fistula and into the interior of the rectum. The silk ligature is then carried into the bowel on the top of the fore-finger, in the cleft under the free extremity of the nail. Having the ligature thus in the rectum, it is easy to slip the probe alongside of the finger, which is then withdrawn, leaving the ligature; the latter is now twisted by its two ends until it grasps firmly the extremity of the probe, so that in withdrawing the probe the ligature is carried through the sinus and may be tied in the ordinary way. This is easier to carry into effect, practically, than to describe. It is only needful to see that the end of the probe is bulbous enough to prevent the ligature from readily slipping off. Most of those sold are so.

In using the elastic ligature for the treatment of fistula in ano, it usually becomes necessary to tighten it from time to time. It does not tie easily, and the knot is bulky. In order to perform this duty quickly, securely, and without causing unnecessary pain to the patient, the two ends are simply crossed and tied with an ordinary ligature around them. Either this tying or the subsequent tightening of the ligature can be done without the aid of an assistant, by making two small loops of wire and fastening them to the ends of the ligature. Having the thread between one thumb and forefinger ready to tie around the ligature when it is drawn tight, the little finger of each hand is inserted into the loops or rings of wire, by which any desired traction can be made upon the ligature, while the other fingers of both hands are free to tie the silk or hempen thread. This is a very useful expedient.

The Dry Suture, for closing large wounds, such as are made sometimes, for example, in removal of the breast. Two sheets of the most tenacious of all plasters (Seabury & Johnson's porous plaster), two and a half inches wide and of the length of the wound, are required. These perforated strips are placed one on each side of the wound and parallel with it; then, with an eyed probe the surgeon can lace the two together over the wound, by carrying a silk ligature or a slender lacing across alternately from the second row of perforations in each sheet, so that the wound is drawn together without any tension upon

its edges, but by taking a very wide hold on the surrounding skin. It is a very important thing to bring the wound together in this way, especially since it is well known that, as the edges swell in the course of a few days, there is a tendency to the cutting through of sutures applied in the ordinary method. The same expedient is useful in treating large chronic ulcers of the leg, where it is desired to reduce a wide, granulating surface; and a number of other applications will suggest themselves.

The Use of Reflected Light, by means of the ordinary head-mirror of laryngoscopists, is recommended in examining other portions of the body, such as the ear, rectum or vagina. It is sometimes difficult to move patients; they are heavy, or are so ill that they cannot be placed in a convenient position for examination; the light may be inconveniently located, or the source of light may be a window that may expose the patient to curious neighbors. In all these cases, the reflected light from the head-mirror enables us to obviate the difficulty and to direct the light as we desire, without needlessly exposing the patient. Moreover, it obviates the necessity of the surgeon dodging the shadows of his own head.

The First Insensibility from Ether.—For the short operations of minor surgery and the reduction of dislocations or opening of abscesses, it is extremely useful and of every-day application. Such a patient wishes to be operated upon without pain or being incapacitated from attending to business during the remainder of the day. He lies down upon the sofa, and with one hand places the ether-inhaler, or a sponge wet with ether, over his face, mouth and nose, and holds the other arm and hand up in the air. This arm, after the ether has been breathed for a few minutes, will drop, and from thirty to fifty seconds of unconsciousness will be had in which to operate. The sponge being removed, the patient is ready to go about his business. It gives rise to no headache, nausea or other unpleasant symptoms, and is particularly useful in children. The chief source of disappointment is in not recognizing the right moment, for if this is allowed to pass, unconsciousness will not again occur until full etherization. The first insensibility is sure to come. When the arm moves, be ready, and as soon as it drops perform the operation; no pain will be felt.

Dr. Brinton endorsed the above. He had opened a very painful carbuncle by free incision, with the best results. After a

few inhalations a sensation of coldness of the face is experienced, followed by vertigo and roaring noises in the ear; at this time the arm moves and drops, and the operation or incision is made absolutely without pain. He was now constantly employing it in dividing strictures, laying open sinuses and in operations which require but a moment to perform. Direct the patient, while holding up his hand, to tell when his head begins to go around. This will notify you *to be ready* to operate immediately upon the hand falling.—*Med. Times.*

OBITUARY.

DR. SAMUEL OVERALL died at St. Charles, Mo., Aug. 3, 1879, in the fifty-eighth year of his age.

He graduated in Medicine in Cincinnati, in the spring of 1846, and immediately began practice at St. Charles, Mo., where he remained up to the time of his death, engaged in a large, laborious and lucrative practice. He was much beloved by his patrons on account of his cheerful countenance and engaging manners.

He was a good physician—kind, thoughtful and pains-taking,—never sparing himself. He never took any recreation outside of his duties until his health failed, which was about eight or nine years ago. He had occasional attacks of asthma during most of his life; about ten years ago disease of the heart began to manifest itself, he began to suffer with palpitation, shortness of breath, a rapid pulse (averaging about 110 beats per minute) and the usual other symptoms of cardiac complication. During this time he visited many physicians of eminence, took long vacations and travelled a good deal, seeking relief. None of the physicians who examined him made a satisfactory diagnosis. They all found emphysema of the lung, and told him there was heart trouble, but were uncertain about its nature. He kept up his practice when at home until about three months before his death, when he refused to prescribe or see patients. During the last three months of his life he remained mostly in the house, being occasionally driven out in a carriage.

He was a devoted Christian and a member of the Methodist Church. The evening before he died he said he felt better than usual, and went out for a ride. During the night his wife was awakened by hearing him struggle, but when she got to him he was dead.

He leaves his family (a wife and four children) in good circumstances. He was a kind man, a Christian gentleman, a good practitioner and was never known to take unfair advantage of a professional brother.

At a meeting of the physicians of the city of St. Charles, held on the 7th day of August, 1879, at the office of Dr. F. D. Johns (to whom we are indebted for the facts of this notice), for the purpose of taking action on the occasion of the death of Dr Samuel Overall, their senior professional brother, the following testimonial was unanimously adopted:

1st. That, by the death of Dr. Overall, the profession has sustained a loss of no ordinary character, which may be truly said to be irreparable; and we, his surviving brethren, desire to express our emphatic testimony to the sterling qualities of head and heart that marked a professional career of a third of a century's duration—a career justly entitled to be called one of the most honorable and successful in the annals of Western Medicine.

2d. That we feel that we have lost not only a distinguished professional brother, but a "companion, guide and friend." His self-sacrificing devotion to duty, his kindly sympathies for the poor and the distressed, and the many charities that characterized his daily life, made his name not only honored, but loved.

3d. That we can hardly realize that we shall not again look on that beaming countenance, nor hear that cheering voice, nor feel the inspiration of that genial presence which has so often robbed disease itself of many of its pangs and the sick-room of much of its gloom.

4th. But, deploring as we do our great loss, we yet feel a consolation in knowing that his example and character will still live to guide and direct those who come after him.

5th. That we tender to the family of our deceased friend and brother our deep sympathy and condolence, and we request the secretary to furnish them with a copy of these proceedings.

6th. That the St. Charles papers and the medical journals of St. Louis be requested to publish these proceedings.

JOHN H. STUMBERG,

B. GERET,

F. D. JOHNS,

J. R. MUDD,

HENRY KIRCHNER,

T. L. RIVES,

BENJ. W. ROGERS,

C. M. JOHNSON,

J. P. McELHINEY,

JOHN E. BRUERE.

WE notice the death, at Ischl, on the 18th of August, of

Prof. Julius Klob, of the University of Vienna, well known for his excellent work on the Pathological Anatomy of the Female Generative Organs.

THE death of Mr. Maunder, F. R. C. S., Surgeon to the London Hospital, is announced.

NOTES.

THE BRITISH MEDICAL ASSOCIATION.—On account of speaking the same language, we of this country are drawn near to and take an active interest, in the doings of the profession of Great Britain. The two countries have much in common—we learn from them and they from us. In another place we furnish our readers a pretty full abstract of the proceedings of the late meeting of the British Medical Association, especially those portions pertaining to public health and State medicine, as being the most important subject that can engage our attention as an associated profession. We in this country, and especially in Missouri, are behind our British brethren in this particular, and have much to learn from them, and much in which we may profit by their experience.

Our own National Medical Association has many things to know before it will exert the beneficent influence and accomplish the good work attained by the British Association. It is, however, our wish and our will not to be behind, and to that end we will continue to work.

THE AMERICAN DERMATOLOGICAL ASSOCIATION held its Third Annual Meeting in New York, August 26, 27 and 28th. There was a full attendance, and the proceedings were of great interest, the papers being of a practical character. The officers elect for the ensuing year, are: President, Dr. L. A. Duhring, of Philadelphia (reëlected); Vice-presidents, Drs. Edward Wiglesworth, of Boston, and W. A. Hardaway, of St. Louis; Secretary, Dr. Arthur Van Harlingen, of Philadelphia. Newport was the place selected for the next Annual Meeting, to commence the last Tuesday in August, 1880.

THE ST. LOUIS MEDICAL SOCIETY has re-convened for its fall and winter work. It met Saturday, September 6th, and will continue its meetings weekly, throughout the season.

THE OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY of St. Louis will meet September 18th, to discuss Dr. Bauduy's paper:—"Puerpual Eclampsia a Neurosis."

THE ALIENIST AND NEUROLOGIST.—Such is the title of a new quarterly journal, to be initiated January 1st, 1880, and to be published in St. Louis. It will be devoted to neuro-psychic and nervous diseases, management of the insane, electrology, treatment of alcoholism, meconism, chloralism, etc. Dr. C. H. Hughes, already well known in the field of neurology, is at the head of the enterprise. We wish the barque a safe launch and prosperous sailing.

THE YELLOW FEVER districts present a more hopeful outlook at the close of the present week (Sept. 6th), than at the close of last week. The fever is still chiefly confined to Memphis and to a limited district of New Orleans, though we have advanced one week into the most dangerous month of the season. Up to the present date there have been 873 cases and 233 deaths at Memphis; and 18 cases and 5 deaths at New Orleans.

The work of cleansing and isolation is being vigorously pressed forward. A picket-guard has been established around Memphis to prevent the entrance of unacclimated persons and the exit of infected matters. Squads of laborers, directed by skilled persons, are devoted to special branches of cleansing and disinfection; every sick person is promptly isolated, and depopulation is encouraged by every possible inducement, and urged by every allowable compulsory measure. In New Orleans the infected district is completely isolated and placed in charge of a member of the State board. This district is divided into seven sub-districts, each one of which is in charge of a sanitary inspector, who has the aid of a sanitary policeman, one light wagon and driver and four laborers. The work of cleansing is thorough and systematic. The squad proceed from house to house and cleanse, disinfect, white-wash, flush gutters, open drains, purify closed areas, etc. Probably there never was a time when the value of cleansing and disinfection, as a preventive measure against yellow fever, was put to such a crucial test.

From Havana, Dr. Chaillé writes: During the week ending August 16th, the deaths from yellow fever were 100. I have inspected that portion of the city fronting the sea and lying by the harbor. The most fertile imagination could not exaggerate

the unsanitary condition of these localities. Defective drainage, nauseating filth, and all the ills of deficient water-supply and over-crowding, are so conspicuous that it becomes a matter of astonishment that people can live at all under such circumstances.—*Bulletin National Board of Health.*

MORTALITY TABLE.

CITIES.	ESTIMATED POPULATION	DEATHS.	DEATH RATE PER 1000.
New York.....	1,095,805	*3,489	33.00
Philadelphia.....	901,380	*1,823	23.50
Brooklyn.....	564,448	*1,453	26.50
St. Louis.....	500,000	*832	17.30
Chicago.....	460,000	†1,002	26.00
Boston.....	375,476	*822	23.00
Cincinnati.....	280,000	*669	25.00
New Orleans.....	210,000	*471	23.30

* For the five weeks ending Aug, 9th, 1879.

† For the month of August, 1879.

The above populations are, as indicated, only “estimated;” and are accepted, in each case, by the local health departments and so reported in their bulletins. Thus, we may believe that without exception they are too high, though probably not far out of the way.

We will continue to give the populations as reported by the different Boards of Health, and patiently await the results of the national census, which will be given next year.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.	METRIC. Gms.
℥i. or gr. i. equals - - - -	06
℥xv. or gr. xv. equals - - - -	1
fʒi. or ʒi. equals - - - -	4
fʒi. or ʒi. equals - - - -	32

The decimal line instead of points makes errors impossible.

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.—*Metric Bureau.*

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ORIGINAL ARTICLES.

MILK—ITS USES AND ABUSES.

By P. V. SCHENCK, M. D., *Resident Physician St. Louis Female Hospital
St. Louis.*

THE importance of the milk-producing industry of our country was well expressed in a late address of the Hon. Horatio Seymour, in which he stated that it is one of the roots of our prosperity, and that the loss of a single season's dairying, in New York State alone, would be greater than if all the Banks of New York should be rubbed out. As this industry is so great, anything, therefore, which tends to improve the product, or to injure it, is of importance for the study of the statesman and financier; but the investigation presents a greater interest, because the results are vital to the medical sanitarian.

The swill-milk and in-town dairy question is one of those recurrent subjects that are brought before all local Boards of Health, and will keep up an agitation until a city becomes so large and the nuisance so stupendous that it must be finally disposed of.

Pure milk, like pure wine, is difficult to obtain. For pure port wine go to Oporto, see the grapes grown, the wine

pressed and barreled, then get on the barrel and ride home. A not less special course will be necessary, soon, to procure pure milk.

Very little is known concerning the physiological conditions which modify the secretion of milk. There is no difference, so far as solid food is concerned, whether it be coarse or delicate, so long as the animal is healthy or well nourished. There should always, however, be an increased supply of liquid. It increases the solid as well as the liquid proportions in milk. Alcohol increases, by stimulation, the quantity, but alcohol as such has never been found in the milk. The use of certain articles such as acids and fermentable substances, disturbs the organs of digestion of those who use the milk, without producing any change in the milk which can be recognized by chemical analysis. It is well known to farmers, especially those who are milk-producers, that the milk is very materially affected by the food. If the cows eat onions, the milk has a taste of garlic. Turnips impart a peculiar and unpleasant flavor. Carrots, as a food, will decrease the amount of casein and butter, and increase the amount of sugar in the milk, and this change becomes much more marked when beet-root is used as a food. Grass is, above all other articles, the best food for cows; then come the watery vegetables, turnips, cresses, carrots, &c., &c.; next, hay and the cereals. Green corn increases the quantity but not the quality; besides, there are but few cows with which it will not disagree. Crushed or ground food, with warm water, is more easily digested than solid food with cold water.

If cattle eat noxious food, their milk becomes also noxious. The poisonous meadow-saffron of England, the Indian hachy in this country, are striking illustrations of this variety of food, and the deaths reported of those who drank the milk are sufficient evidence in point.

Milk, by improper feeding of animals, is often so far thinned as to contain an exceedingly moderate percentage of nutritious material.

Impure drinking water given to an animal will cause the

secretion of unwholesome milk. In the report of the standing committee of the New Jersey State Medical Society for 1875, we have a striking illustration to this effect. Three infants were well and thriving upon the milk of one cow; the animal unfortunately broke bounds and drank of stagnant water from old clay-pits. After using her milk at morning and noon the next day, the children were attacked with cholera infantum, from which two died before sunset, and the third and eldest after four days. The pasture was the same as before, the cow's health not apparently affected, and no cause could be discovered other than that above assigned for the children's illness.

According to Mr. Allen's experiments, the character of milk, by change of food, may be increased or decreased as follows: from 90.05° to 81.05° liquid, and from 9.05° to 18.05° solids.

Swill, or the residuum of distilleries, doubtless increases the quantity of milk when used as a food, but the secretion is modified, and though the animal may increase in flesh, yet the animal is not healthy; and though the immediate secretion may not be so rendered, yet the cow will become diseased, and the fat is a degeneration. Healthy milk cannot be secreted by an unhealthy animal.

What is swill or distillery slop? The grain is ground—corn being principally used—and placed in tanks with hot water. The liquid has added to it the yeast; the starch is converted into sugar, and the gluten goes to form the soil for the growth of the yeast-plant. The yeast augments from four to five fold during the process of fermentation. This augmentation arises from the growth of the minute plant called *torula cere visiae*. The liquid is apt to be attacked by other parasites; hence, after a time it is cooked to bring them to a torpor. Thus the yeast-plant, trying to live without air, plunged as it is in the bottom of the vat, can only get oxygen by decomposing the sugar, and letting free carbonic acid, and as the result, one of the liquid products, we have alcohol. On the principle that water boils at 212° , while alcohol will boil at 176° , we have a distilla-

tion, and the water which runs off is distillery slop or swill, which contains the shells of corn, sugar, dextrine, albumen, lactic acid and alcohol. As the effort of the distiller is to extract the sugar, dextrine and alcohol, there is but a small percentage of those remaining. The material is soon in a state of fermentation, and a good field for the action of bacteria. The animal has to be compelled to eat it; and here nature comes in with her compensating power and endeavors to overcome its evil effects; but though the animal may fatten, (herbivorous fatten more rapidly than carnivorous), it is unhealthy. That cows fed upon distillery slop fatten is no answer that it is proper food. Spallanxi found that pigeons may be fed on flesh, and eagles on bread; the domestic dog may grow strong on biscuits and may even suffer if brought back to his native food; poultry may become more robust and more fertile for being supplied with meat and fat; and our cats have accommodated themselves to a mixed diet, assimilating their form to the herbivora by a considerable increase in the length of their bowels, over those owned by their cousins of the mountains. The solvent action of the juices of the intestinal canal admits of modification, according to the diet adopted. Under vegetable diet the saliva is more copious; under meat there is more gastric juice. The bile of the grazing ox is more watery than that of man. The bile of a growing boy, who can eat any quantity of meat, contains nearly double the amount of solid contained in that of an old woman; therefore we find that as age lays his heavy hand upon the organism, the taste for animal food undergoes a natural and spontaneous reduction, and the diet of childhood is usually instinctively adopted.

The sanitary authorities of New York city, a few years since, caused the milk to be chemically examined, that came from cows fed on the residuum of the process of distillation. It was found to be bad, different in elementary character from that produced by cows fed upon grass, hay or grain. In many cases, under the microscope, it showed the milk globules cohering, and little bunches of them bro-

ken down and decaying. It was not so well digested in the stomach, nor had it the nutritive power to create flesh and sustain strength. Dr. Nichols, in his report, in which he was substantiated by Prof. James F. Babcock, says that the food, such as distillers' grain, &c., is unnatural; the milk-producing organs are unnaturally stimulated, and a large amount of deteriorated milk is yielded. If the food consists of the refuse of distilleries, then the animals become extensively diseased, and although the appetite remains unimpaired, the milk given is manifestly unfit for consumption. Milk from diseased cows soon decomposes; it may contain heaps of granules, collected in roundish masses, pus cells, or epithelium, and occasionally blood. It soon becomes acid, and the microscope detects usually abnormal cell forms, and casts of lacteal tubes.

The cow, as well as any other animal, for good health, needs the essentials of health—pure air, good food, sunlight and exercise—conditions seldom attainable in in-town dairies. An animal intended to graze for a living, and especially one that not only provides for herself, but supplies the model food for others, needs exercise.

Dr. Little, of New York, has reported fully the post-mortem appearances of still-fed cattle. The liver is soft and studded with abscesses, and the lungs, examined under a microscope, showed in portions of them pus cells, in great numbers. A writer in a late number of the *Encyclopædia Britannica*, calls especial attention to the fact, that long-continued feeding of swill produces lung-disease in cows. The ill-effects, indeed, I may say the poisonous effects, of milk obtained from still-fed cows have been amply shown and proven. Large cow-stables, containing hundreds of bloated, diseased animals, fed on swill, are not the sources of healthful milk. That it is possible for cows confined in crowded, ill-ventilated stables, and fed on such food, to give forth pure milk, is to me manifestly absurd.

There is no article of diet so sensitive to deleterious influences as milk. Recent history of contagious diseases renders it highly probable, if not positively certain, that

milk, in some conditions, is capable of being infected with certain so-called organic poisons. Milk is accountable for a great deal more of zymotic disease than is commonly supposed. For one epidemic traced to milk there are probably many which attract less attention, but to which, if closely studied, the origin in milk might be assigned. If clothing will spread the infection of fever, so, when once infected, will milk, and that in a far more insidious and extensive manner; for with milk it is impossible to say how widely or how far the disease may be carried. If water will carry the germs of cholera, so will milk; and with milk there is the added danger, not indeed demonstrated, but suspected by many, that the highly complex organic constituents, so closely analogous to those of the body, which are present in it, may serve as a pabulum for the development and indefinite multiplication of disease-germs. It is a fact that milk-spread epidemics are particularly virulent. An epidemic of a typhoidal character appeared in a small village of five hundred inhabitants, where one hundred and fifty people were taken ill. It was conclusively shown that the poison came from milk. The *British Journal*, in citing the cases in Greenock, says twenty of the cases were typhoid fever and directly traced to contaminated milk. Dr. E. Duncan, in his carefully-prepared report of the fever in Crosshill and Eagleshore, proves that milk was alone the agency through which the disease was spread; and Dr. Sergeant, in his work upon "the epidemic of enteric fever," at Bolton, states that, beyond peradventure, terrific as the disease was, it was due to milk contamination. Dr. Spear says that the fact is not disputable, that the celebrated Marylebone epidemic originated from the dairies; and in this case investigation showed that no adulteration of water was used. Dr. Ballard found that in Islington half of those supplied by a certain milkman were ill with typhoid fever. The Eagby outbreak, which was investigated by order of the British Parliament, the report of the Officers of Health, the statement of Mr. Sergeant and the report of Mr. Powers, all confirm the fact,

that sixty-three households were affected, and one hundred and ninety-four cases of typhoid fever occurred. The milk supplied to these families came from one dairy. The quality of the milk was poor, and, in their opinion, the contagion came from the water which had been used in adulterating the milk. Dr. Murchison has made a report confirming this idea, though from an experience in another locality. Scarlet fever has been communicated in the same manner, as has been proven by Prof. O. Bell and Dr. Robinson, and other authorities.

It must be confessed, that to the exclusion of the noxious influences liable to be conveyed in milk, science affords very little help, and those influences are arising from an unhealthy condition of the cow, or in the human dwelling, in the dairy, or from gross carelessness in keeping the produce. Instances illustrating the effect of neglect in this respect are common, in which an exceptionally rich milk, having a high specific gravity and yielding a large per cent. of cream, is so thoroughly impregnated with the vitiated air of the stable as to be decidedly repulsive to the taste.

Milk from a diseased cow will produce disease in man, and other animals. Fresh cows have for a few days a colostrum which, even boiled, is unwholesome. In the etiology of scrofula, lately, the suspicion has been raised, that, through the means of food, and especially of cows' milk, a specific matter may be transmitted which gives rise to disorders corresponding in their progress to certain forms of scrofula. Villimen and Klebs state that the symptoms of animals artificially infected with tubercular matter corresponded with those of scrofulosis. The pearl disease of cattle has been recognized as a disease equivalent to tuberculosis, and it has been demonstrated that it can be transmitted through the milk. Galack, Kleits and Chambräu, and others, have shown that tuberculosis may be generated in omnivorous animals, by feeding them on milk of cows affected with pearl disease.

Dr. Thorne, after careful investigation, states that disease

appears to have been produced in the human subject, when the milk from cows suffering from foot and mouth disease has been freely used without being boiled. Dr. Simons says that the milk of cows affected with this disease ought not to be unrestrictedly sold for human consumption. The State Board of Health of Massachusetts warns the citizens from using such milk, particularly for the food of young children. Dr. Marion states, it has long been known that children, who have been fed with the milk of cows affected with this disease, are not unfrequently attacked with vomiting and diarrhœa. Dr. Payne gives a good description of diseased milk (from foot and mouth disease). From examination made by Mr. Thomas, there are small particles of solid matter—fat, in star-like form. Masses of fat will rise to the surface upon agitation, and from a pint of milk you can obtain an ounce or an ounce and a half of butter. The color of the milk is yellowish-brown.

The fact that the milk of cows affected with an eruptive disease may produce an eruption on the surface of the body of human beings, analogous to that developed in animals, has been satisfactorily shown by Prof. Hertwig, of Berlin, and Prof. Jacobs.

Milk is used as a vehicle for medicine. The child is medicated through the mother. Various medicines taken by the mother have been found in her milk, such as, for example, arsenic, antimony, bismuth, iron, iodide of potassium, iodide of mercury, lead, quinine and zinc.

Dr. Mouribot, of France, has increased the phosphates in cows' milk by feeding the powder of calcined bone mixed with bone gruel.

Milk and whey cures are frequently employed. Milk cures are as old as the days of Galen, who sent strumous patients to the milk cure at Stabice. Milk is useful in anæmia with imperfect assimilation. In Bright's disease I am persuaded that nothing would give a better chance than a systematic milk diet, for it will supply an abundance of albuminous material. Hippocrates was not wrong in advising a consumptive to drink a large jug of milk each

morning. Dr. Tarnier recommends milk in puerperal albuminuria, as a preventive of eclampsia, and cites numerous cases in support. Dr. Thomas injects milk into the veins, instead of transfusing blood. Leblond has had excellent results in the enteritis of infants with phosphated milk. Drs. Herard and Bouchut have obtained like favorable results in pulmonary tuberculosis.

In diabetes mellitus Doukin highly recommends the use of skimmed milk. Milk prepared as Koumiss contains fat, casein, salts, lactic acid, alcohol, and carbonic acid gas, and it is good in feeble digestion and well suited in pyretic conditions. Whey contains the salts of milk and the sugar freed from fat or casein. Its use suits well two classes of patients, the plethoric, who consume and digest too much, and those whose digestion is feeble, and require their nutriment highly diluted. It is frequently employed in bronchial catarrh, especially in delicate subjects. Buttermilk is where milk sugar has been broken up into lactic acid. Niemeyer says in regard to its use, that he has seen in gastric catarrh of chronic character, brilliant results from the prescription, "when a patient is hungry, let him eat buttermilk; when a patient is thirsty let him drink buttermilk." Buttermilk, especially if it contain flakes of butter, is useful in diabetic patients, as well as those suffering from chronic Bright's disease. Dr. Atlee, from experiments at the Satterlee Hospital, highly recommends buttermilk as an external application in gangrene. In confirmation of the results of milk treatment in general, the late reports of Dr. George Johnson, in the *London Lancet*, place the question beyond further dispute.

Milk is adulterated with flour, water, chalk, salts, sheep-brains, gum arabic, starch, annato and caramel. There is now a special milk sold for making whipped cream. A chemist has found it to be composed of a solution of soap, in a kind of milk. Dr. Hassell found three-fourths of the milk in London adulterated. Water was principally used, and in proportion of from ten to fifty per cent. At a council of physicians in Berlin, it was ascertained that eighteen

thousand three hundred infants in that city are yearly fed with cow's milk. Allowing a quart a day for each child, and taking into account that many infants use it, together with their natural nourishment, it may be, say they, safely estimated that twenty thousand quarts a day, or seven million three hundred thousand quarts a year are consumed in this manner. The milk annually supplied to Berlin amounts to fifty million quarts, the large part of which comes to the dealer unskimmed, from which is furnished the large quantity of cream for the confectioners, which is estimated at fifty thousand quarts a day. According to these figures the pure milk brought into the city would not suffice of itself, to furnish the cream consumed, and it is needless to ask how the twenty thousand quarts for the infants, and the much larger quantity required by the adult inhabitants, are obtained. It is evident that the Berlin milkmen must make a profit of over one hundred per cent at the expense of the health of an outraged community.

Whom does impure milk affect? Parents and physicians know too well who are, and know how they are affected. Milk is the substance on which the existence of our infants, and in most cases that of our invalids depends. The infant at the breast, the little baby, that has to seek another dairy than its mother's; the invalid prostrated by disease, when the taking of each drop of liquid, each grain of food for support, is an effort—where one drop too few—one grain of sustenance too many, may change the balance on life's scale—these are they who are affected. Fully seven-eighths of all the misery human beings suffer is caused by what they swallow, and happiness and dyspepsia are incompatible conditions. In Massachusetts one quarter of all the deaths, under four years of age, are from diseases of the digestive organs. If the milk comes from a starved cow, or the majority of it from a pump, the child will require more of it in just proportion. Whether the child has nothing to eat, or has its stomach filled with food which it cannot digest, or of which the nutrient arteries cannot make flesh, it is all the same to the child; it is actually starved for

the want of nourishment in the textures, the place where it is needed. Guerin found it possible upon inferior animals to produce rickets at will, by adulterating or removing too early a milk diet from the young. An infant's stomach is particularly susceptible, and persistence in the use of food that has once caused disordered digestion, is sure to develop cholera infantum. That insidious foreshadowing of death called "delicacy of constitution," is oftentimes the result of improper food.

Dr. Lewis Smith has clearly shown that cases of cholera infantum are increased, not only in numbers, but in severity, by the use of swill-milk. Flint, "On Milch Cows and Dairy Farming," gives an analysis of distillery slop; setting forth its injurious effects upon the systems of young children, and shows conclusively its death producing power. The sanitary authorities of New York, a few years since, officially watched the effects of swill-milk upon the children and adults who drank it. The children lost flesh, or failed to gain it; their skins were pallid, sometimes discolored or corrugated; their countenances had the appearance of old age, rather than the bright and lively bloom of childhood. They suffered from diarrhœa and dysentery, and great debility; and many of them died.¹

The French authorities have had this matter under consideration, and they have found that, although the distillery-fed cows had a greater flow of milk, yet the children who drank it suffered a great deal from waste of flesh and strength, and that the loss of infant life from this cause was great. The statistics of France show that in that portion of the country where the children are fed from dairy milk, deaths from diseases of the digestive organs are more than doubles those in districts where children are fed upon what is undoubtedly pure milk. The Germans have investigated this subject. Dr. Bazinsky reports that the infant mortal-

¹ In confirmation of these views, see the "Health Reports of New York City," the "certificates of sixty well-known physicians of New York, upon the deleterious effects of swill-milk," "the investigations of the New York Academy of Medicine for 1857," Report of the "Sanitary Inspector in 1859," and in Dr. Percy's "Food for Cities."

ity during the summer months has quadrupled during the last twenty years, and his experiments show the change to be due to the milk diet used. During the last three months just passed, the officers of the law in the city of Berlin, so great became the monstrous evil, have had to take the matter in hand and empty into the gutters the cans of swill and adulterated milk.

From the statistics which I prepared as Health Officer in 1874-5, it is clearly shown that in cities where swill-milk is sold and in-town dairies allowed, the infant mortality is by far the greatest. The infant mortality is greater in the West than in the East, greater in the cities than in the country, greater in cities surrounded by grain-growing districts, greater in proportion to the number of distilleries, and greater in proportion to the use of swill-food. The healthy city of Milwaukee, where, we would think, our children should be sent to avoid the enervating effect of high summer-heat, looms up with an infant mortality of sixty-one per cent.

Our city, that boasts of its healthfulness, shows an average infant mortality to total deaths during the months of July and August, of fifty-nine and a half per cent. The facts are upon us—our children who have died add but figures to these sad sanitary statistics. The question is, what remedy have we for the future? There is no more important question presented to us than this. It is a trite maxim, that a large and healthy population is the life and strength of a people, and the source of their success in science, art and commerce. This question is especially pertinent to people in this city. We have here an average mortality lower than any other city of our size; indeed, I had almost said, lower than any other cities where statistics are as accurately kept. Yet, in the face of these low and accurate statistics, you will notice that the average of our infant mortality, in proportion to our total deaths, is equal to the highest of any other city in the world. It cannot be doubted, that a fast-advancing public opinion will, ere long, fully recognize the importance

of health over and above any squeamish objection to fancied disregard of personal liberty and property rights involved in the control of dangerous commodities. If a mad dog or nitro-glycerine are dangerous and as unquestionably to be taken care of, how much more needfully and constantly so, the improper food of our infants and invalids!

The same spirit is rife in our own day and in our own city, which prevailed in the time of Christ, when the whole country came out and begged Him to depart out of their coasts, because His gracious exercise of divine power had lost to them a herd of swine, unmindful that the same miracle had delivered a human being from the dominion of devils and restored him to his right mind. The same kind of men live in our city—if, indeed, they are not their direct posterity—as those who beat Paul and Silas in the market-place because they saw the hope of their gain was gone.

We need milk-inspectors, for the safety of our population, more than we need coal-oil inspectors; and the inspector should go beyond the article. Sanitary supervision of milk is incomplete, unless it extends beyond the physical condition of the cow and includes her keeping, and the food as well, and also the place in which the milk is kept.

Let the State Legislature give us such a code, accompanied with penalty for its violation. We have a Board of Health anxious and ready to carry it out, and, if we had such an order, fully enforced, our milk would preserve more of its original qualities than its color and name. Our present in-town dairies, or swill-milk factories, would be done away with, our milch cows would cease to be filters for swill, and we would find the mortality of our children appreciably decrease.

YELLOW FEVER.

BY S. D. V. HILL, M. D., MACON, MISS.

[Read before the Noxumbee Co., Miss., Medical Society, at its September Meeting, 1879.]

* * * * *

THE first well-authenticated knowledge we have of yellow fever, as an epidemic disease, comes from an outbreak of it in Havana, in 1761; and it has been endemic there ever since. The West Indies are evidently its natural home; and from there it has spread to North and South America, the Western coast of Africa and some portions of Europe. It is strange that it should be unknown in the tropical East Indies, the borders of the Indian Ocean, Eastern coast of Africa, etc., when there is such constant communication between these countries and places infected with it. Cholera comes from the Eastern, and yellow fever from the Western Hemisphere; and both are the most destructive epidemic diseases known to their respective regions.

Previous to the year 1796, New Orleans was exempt from yellow fever, though communication with the West Indies existed long before that time. It seems that an infected ship did not happen to strike that port until the year mentioned, although previous to that time it had appeared in New York, Boston, Philadelphia and other northern cities, having been brought from the West Indies in ships. During the present century hardly a year has passed without fever appearing at some one or more points on our extended sea-coast, very often spreading into the interior and becoming a wide-spread epidemic.

Yellow fever may properly be defined an epidemic, infectious disease, exotic to this country—having its habitation in the West Indies—capable of transmission in hot weather, by means of fomites and individuals, and spreading with

great rapidity in an atmosphere of high temperature, elevated dew-point and loaded with organic sporules.

It matters little whether the atmospheric impurity be of vegetable origin (malaria), or animal (ochlesis), or both ; it is equally efficacious as a nidus for the reproduction of yellow-fever germs. You have noticed how invariably it breaks out in the lowest and dampest localities, where malaria is known to exist ; or in places where all kinds of garbage is decomposing in the sun—among the hovels and homes of the uncleanly and unsanitary. There is an old, marshy basin in New Orleans, inhabited by the more indigent and filthy class of people, that is known as the yellow-fever locality, and where it almost always first appears in the city. In Mobile, the flat, noisome suburbs are where it usually breaks out and is most prevalent and fatal. Bayou Gayoso, in Memphis, has become notorious as furnishing the first pabulum for the support of the fever-germs.

When New York, Boston, Philadelphia and other northern cities were comparatively small—as in the early part of the present century—and had no adequate system of sewerage, no water-works, no drainage of the surrounding swamps, and were deficient in other sanitary measures, they were almost as liable to yellow fever as New Orleans, and were frequently decimated by it. But now, we often hear of foci of infection in these cities without its spreading, evidently for want of those organic products upon which the poison feeds and grows. Why did the fever spread at Gallipolis and not at Cincinnati, a crowded city in the same latitude ? Because the one was a village in a swampy locality, without drainage and other sanitary advantages ; and the other, a well-drained city, with sewers and water-works.

It seems to me a plainly-authorized conclusion from existing premises, that all cities and towns of any size, in the temperate zones, surrounded by low, marshy, malarial soils, that have imperfect systems of drainage, no water-works (on the other hand obtain drinking-water from superficial wells), that use privy-vaults instead of sewers—

in fact, all places where the air and water are liable to become contaminated with the products of organic decomposition, will be subject to epidemics of yellow fever whenever a focus of infection is introduced into them during a hot season—the liability always being in the ratio of the mean height of temperature and dew-point.

Memphis is a notable example of a city furnishing unusual facilities for the reception and re-production of yellow fever poison. It is situated on a low bluff, opposite an immense spread of river-bottom, is half-way surrounded by that currentless, open sewer, Bayou Gayoso, and has other sluggish streams—receptacles for all kinds of foul, filthy substances—in close proximity. And, for a city of 50,000 inhabitants, it stands almost without a parallel and precedent, in not having a system of sewerage sufficient to sweep away the disease-producing excrement and other refuse matter of its large population, instead of using superficial privy-vaults and cess-pools, so well calculated to saturate the earth, water and atmosphere with poisonous organic sporules, the very thing that yellow fever feeds upon.

In addition, Memphis has water-works adequate to the supply of only one-third of her population, the remainder being compelled to supply themselves from “dove” or dug wells, that contain water which has filtered through the decaying excrement of 50,000 people, rotting Nicholson pavements, and other disorganizing and death-dealing organic substances that naturally accumulate on the surface of the earth in a city of such size.

If we recall the topographical peculiarities and sanitary features of other cities—in fact, all of them—subject to yellow fever, it will be seen that very much the same state of things exists as at Memphis. New Orleans is lower than the surface of the Mississippi River, and never has, and perhaps never can have, a perfect system of drainage and sewerage. The same difficulties exist at Mobile, Galveston, Savannah, Charleston and other coast cities of the South. Shreveport, Selma, Montgomery and other interior

towns, in which yellow fever has prevailed, have no adequate system of sewerage and water-works. But Nashville, Louisville, St. Louis, Cincinnati, etc., have; and they have had frequent foci of infection, in hot weather, without even the fear of epidemics of the dreaded scourge.

So much for those factors which seem indispensable to the existence and spread of yellow fever. It seems plain, that if they were prevented or subdued in communities subject to, or possessing them, that yellow fever would never find a foot-hold.

When a centre of infection occurs in a community, everybody and everything that is even suspected of being contaminated, should at once be isolated, and disinfectants freely used, although they are not such potent germicides as we once supposed. Complete separation and non-intercourse is necessary. As yellow-fever poison seems to "hug the ground," it may be that an impenetrable wall—as of India-rubber cloth, tarred sail-cloth, or something of the kind—surrounding the infected place, might prevent its spread, scrupulous care being observed. This idea is based upon many facts, and appears feasible and practicable. But the trouble is, we do not recognize the first cases, in too many instances, and are not willing to take the trouble to prevent the spread of the infection. We wait, and watch, and hope, alternately believing and disbelieving that yellow fever is upon us, until the infection becomes established and an epidemic commenced.

It is far better to act on the safe side, when a suspicious case, or fomites occur, (without producing undue alarm), and speedily adopt the necessary precautionary measures. Many lives might have been saved last year by more careful and critical scrutiny of first causes of infection, and prompt, vigorous measures of suppression.

There is much difference as to the susceptibility of persons to the poison of yellow fever. It seems to prefer those in middle life, of both sexes—the stout, active, vigorous young people—in preference to the extremes of life; though all ages are more or less amenable, and but few of any age

or condition escape those malignant outbreaks in communities where it never or seldom before prevailed. Persons of rather slender mould, without surplus of flesh, having no acquired, or hereditary, morbid taint, and with calm, hopeful, brave dispositions, together with regular habits of life, are least susceptible to yellow fever, and when attacked, most apt to recover. The timid, fearful, shrinking and despondent, will take it—all things being equal—while the bold, daring and cheerful will escape. It is said, that if, from reckless, suicidal or fanatical notions, one courts death from yellow fever, he is not likely to find it; on the other hand, if he is panic-stricken, and exerting all of his powers to avoid it, he will take the disease when there is the least reason to expect it.

The period of incubation of yellow fever is generally stated, by authors, to be from two to fifteen days; from four to six days being the average or usual time. It has been known to occur in 24 hours after exposure, and as late as 28 days. If a person has passed 10 days after exposure, without symptoms of the disease, he might feel hopeful of escape; and if 15 days shall have passed, there is but little danger—after 20, there is comparatively none.

It is a singular fact, that yellow fever generally attacks at night, especially if the invasion is sudden and severe, showing a violent impress of the poison. It is usually ushered in with a chill, or chilly sensations, pains in the joints, muscles, head and lumbar region. The frontal headache and lumbar pain are quite severe, and always invariably present. Occasionally these prodromata last for a day or two, being gradually succeeded by fever; but generally the initiatory chill lasts but a few hours, and the reactionary fever follows immediately, in which there is more violent supra-orbital headache, pain in the back, flushed face, injected and suffused eyes, hot skin and frequently much restlessness, and more or less tremor of the body. The tongue is furred in the centre, moist, and soon becomes red at tip and edges; temperature ranges from 102° to 105° F., pulse from 120 to 135, or even 140; generally nausea

and vomiting, and active delirium, when fever is very high. The febrile stage lasts from 24 to 72 hours—48 hours being the average time—its defervescence being characterized by copious diaphoresis, and a subsidence of the suffering and distress of the patient, leaving him quiet and comparatively comfortable. The calm stage, which now succeeds, is often very deceptive, both to patient and inexperienced physician. In mild, or very favorable cases, it may fulfill its promises, and the patient go on to convalescence without interruption; but, as a rule, the reverse is the case. Although the fever may be gone, and the patient feel like being up—and often wonder why you keep him confined—it will be noticed that his countenance is haggard and sunken; eyes still more injected; tongue red, and perhaps dry; skin of a red or yellowish-red hue; pulse, perhaps not more than 80 or 90, but weak, unsteady and compressible; temperature from 103° to 105° . Soon the gums become red and spongy, or bleeding; there is hæmorrhage from the nose, stomach, and perhaps kidneys; pain or burning in the region of the stomach and bowels, with tenderness and tympanitis; great restlessness, the patient tossing from one side of the bed to the other, and nausea and vomiting continually. About the third day albumen will be found in the urine, and may be casts of the tubuli uriniferi. Suppression of urine may now occur with its significant, fatal train of symptoms; also, black vomit, or both; and death speedily follows. After the stomach is relieved of its ingesta by vomiting, glairy mucus is generally thrown off, mixed with bile or blood at first, then studded with dark flocculi, like small portions of cobweb wired through it; next the fatal black vomit appears in a certain proportion of cases—differing in different epidemics.

The discoloration of the skin is by no means a constant phenomenon before death, and occurs near the close of violent and protracted attacks, appearing first in the face, and gradually extending over the trunk and extremities. After death it is generally present. The hue is not exactly

that of icterus, but more like the different shades of bronze, or a reddish bronze.

The bowels are usually constipated in yellow fever at the onset, but afterwards may discharge freely a dark bilious matter, blood, or that disorganized blood known as black vomit.

The delirium is often wild and boisterous—the patient struggling to rise from bed, screaming, and at last continually muttering. There is a self-abandon and disregard of consequences that is marked and peculiar. A secondary fever comes on in a certain proportion of protracted cases, which may be distinctly remittent, or assume a low, typhoid form. Relapses are not unfrequent, especially as a consequence of imprudence in getting up too early, or eating, and may take place several weeks after convalescence; and are very apt to result fatally. I should have emphasized, in the proper place, the singular want of conformity—so much spoken of lately—between the pulse and temperature, during the calm stage. The former may be 70, 80, or 90, and the latter 102, 103, or 104 degrees. This is an important diagnostic symptom, greatly relied on of late days, but by no means uniform.

Pathology—Yellow fever is essentially a zymotic disease. A poison is absorbed by the system, and sets up a fermentative or zymotic action in the blood, producing more or less, complete disorganization of this fluid, and rendering it unfit for the purposes of life. Dr. Stone says it kills the blood. The red corpuscles are found disintegrated, after death, and the process of disorganization is observed in almost every organ of the body. The liver is engorged, friable, and of a lighter color than natural; the kidneys are congested, and their tubuli filled with casts and flakes of lymph; the heart is soft and flabby, and the brain substance often pulpy and congested. In fact there is no acute disease in which the evidences of disintegration of tissue are more marked and proverbial, than this. The blood is so early destroyed that retrograde tissue metamorphosis necessarily soon follows.

Differential Diagnosis.—I think it proper to only briefly

allude to the prominent differences between yellow fever and hæmorrhagic malarial and remittent fevers; the only two affections with which it is likely to be confounded, especially in this country. Hæm. mal. fever, according to my observation, is always preceded by chronic chills and consequent malarial cachexia; is characterized by remissions; not so elevated a temperature as yellow fever, nor such headache and delirium; has vomiting of dark, green, bilious matter, instead of altered blood; not usual to have hæmorrhage, except from the kidneys; no albumen in the urine; no want of parallelism between pulse and temperature; and the discoloration of skin is more constant and intense.

Remittent fever is a disease of many paroxysms; the tongue is furred, broad, and indented—not red, as a rule—there is not marked injection and suffusion of eyes; no albumen in urine; no want of correspondence between pulse and temperature; discoloration amounts only to a slight bilious hue; not such constant restlessness and nausea and vomiting; in fact its general features are not so grave as yellow fever.

Treatment.—To say that the management of yellow fever cases to-day, by the most skillful, experienced practitioners, is as barren of good results—as useless in saving life, as it was 200 years ago, is a most humiliating confession for science, with all of its boasted progress. We can yet only palliate and comfort, but not cure, yellow fever. If the attack is soon after a meal, it is customary to give an emetic of mustard and salt, or ipecac. But this is seldom necessary, for the patient will vomit soon enough. A dose of castor oil, or saline aperient, may be given early if the bowels are confined. As early as possible, the patient should be placed in a hot mustard foot-bath, with blankets over him, in order to excite action of the skin. Dr. Chopin, of New Orleans, and others, now give tr. aconite, spts. nitre, or acet. ammonia, to promote diaphoresis, and calm the heart's action. Others give nothing except orange leaf, sage, balm, or other light teas. Ice, and ice-water are permitted by some, and denied by others. I should be in

favor of them on account of being grateful to the patient, and as anti-pyretics. Rubefacients may be allowed to spine, limbs, or other painful portions of the body. Dr. Croft, of Jackson, found great benefit to the semi-lumbar pain and restlessness, by a series of wet cups along the spine, abstracting eight or ten ounces of blood. But perfect rest—absolute quietude from the beginning to the commencement of convalescence—seems indispensable to recovery. The patient must not rise or move for any purpose, as it is all his poor, degenerate blood can do to sustain the indispensable organic functions, and no voluntary draft can be made upon his vital forces without endangering fatal collapse. You cannot even tax his digestive powers to any extent without danger, hence, when the fever has subsided, only the blandest diet can be given—and that in small amounts—as chicken water, barley, or rice water, grits, &c. No food is admissible during the febrile stages. Stimulants should be given guardedly, in the calm stage—champagnes, ale and beer being sometimes most grateful to the stomach; in other instances, nothing but alcoholic liquors can be borne. For the great restlessness and nervous commotion, anodynes should be given, as chloral, bromides, etc., but preferably the nerve-stimulants. Opium has been generally tabooed, but Dr. Croft found excellent effects from hypodermic injections of morphia and atropia, and recommends them as safe and certain. Various mild stomachics are recommended for the gastric irritation, as the effervescing draught, soda powders, etc. Dr. Wharton, of Port Gibson, gave ergotine for black vomit, and others have used it with good results, as a hæmostatic.

No company should be admitted into the room of a yellow-fever patient, under any circumstances. The apartment should be well ventilated, and perfect quiet exist in and around it. I have said nothing about calomel and quinine, though many still advocate their use. Quinine, I should think, might be beneficially administered in guarded doses, during collapse, especially if the stomach will bear it, or by enema where clearly indicated. Convalescence should be managed with great care and caution.

CLINICAL LECTURES.

CLINICAL LECTURE ON DISEASES OF THE SKIN.

Delivered at the New York Hospital, by L. DUNCAN BULKLEY, A. M.,
M. D., NEW YORK.

(Reported for the COURIER.)

CASE I. *Epithelioma Cured by Marsden's Paste.*—GENTLEMEN: The first case which I wish to introduce to you to-day is that of the gentleman, aged forty-two years, a private patient, who kindly consented to allow me to make the application for the removal of his epithelioma in your presence, seven weeks ago to-day. He has since been under my constant observation at my office, and he has been so good as to present himself to you to-day that you may observe the perfect results which have been obtained.

As some of you may only partially remember the case, I will briefly remind you that at least four years ago he first noticed a small spot of abnormal skin in the whisker, just in front of the right ear. It had not given him very much annoyance, but a crust would form, and when this was picked off, the surface would occasionally bleed, another scaly crust would form, to be again picked off, and so it had continued to progress up to the time of his first visit to me. The disease had been diagnosed by others as ring-worm, and as lupus, and as several other diseases, and although he had employed various remedies the spot had never healed. It had been also supposed to be syphilitic, as he was said to have had syphilis, for which he had spent two months and a half at the Hot Springs of Arkansas. The only family history of cancer was that his maternal grandfather had had a cancer or epithelioma cut from the lower lip; he had subsequently lived to be eighty-seven years of age.

When the application was made to the diseased surface, here, seven weeks ago, you will remember that with the curette I removed the lightly adherent scaly crust, and that we found a surface which bled very readily over a space of perhaps half a

square inch. But below this, and on either side, you remember that I pointed out an imperfectly cicatrized margin, somewhat depressed and with dirty yellowish scales upon it, to the width in some places of an additional third of an inch or more. None of the surface of the sore exhibited to any striking degree the features of well-developed epithelioma, as excellently shown on these colored plates, which I hand you again, nor did the disease resemble much that presented on this beautiful model, which is, however, almost perfect as a representation of certain severe cases of this affection: and I wish to call special attention to the great importance of recognizing the true nature of these cases before we have the stiff, hardened edges which characterize well-pronounced epithelioma. The points which I laid stress upon were, the occurrence of a spot of diseased skin upon which a scab or crust forms, and re-forms as often as removed, with the readily bleeding surface, the whole of an exceedingly chronic character, often remaining without much or any change for years, and without giving rise, as a rule, to any subjective symptoms, save, perhaps, just enough of an irritation to cause the patient to remove the crust from time to time: such spots, occurring especially about the face of persons near or past forty years of age, should always give rise to the strongest suspicions of epithelioma. They suggest, of course, lupus, but remember that true lupus is very uncommon in this country compared to epithelioma, also that it is a disease of youth and very rarely first appears so late in life.

After trimming off the hairs and picking off the crusts and scales, you will remember that I made up a paste from equal parts of dry powdered arsenious acid and powdered gum acacia, with a drop or two of water, and laid it thickly over the entire surface, including the imperfectly cicatrized portions below and around the bleeding patch, and after packing on a little cotton wool I directed him to apply a poultice at night, and to keep up poulticing by renewals every two hours during the day and a single one at night, well covered with oiled silk, until the slough had separated and the granulating surface beneath had healed.

This has been well and faithfully done, and to-day you see the results; we have here a smooth, supple cicatrix, upon which there are quite a number of hairs, and which will be almost completely covered by his full beard. He has not, however, been obliged to poultice the spot all the time since you last saw

him. I believe this was continued nearly four weeks, and latterly he has had a mild oxide of zinc ointment applied to promote the formation of a perfect cicatrix and to render it more supple: this he now applies only at night. The wearing of a poultice for this length of time may seem tedious, and indeed it is somewhat so, but this gentleman has worn it concealed beneath this little patch of silk, lined with oiled-silk, which is kept in place by the elastic over the head, and he has been able to be about daily with it on, and has visited me as often as required, coming from Brooklyn each time.

While I do not necessarily urge this treatment upon you in preference to all others, there are certain advantageous points about it which I think demand notice. In the first place, not an inconsiderable number of persons dread the knife beyond all comprehension, and would never think of having such a disease as this removed by that means, whereas they willingly undergo the moderate pain which sometimes follows the caustic, together with the annoyance of the subsequent treatment, if they can only avoid the knife; thus we can often treat and cure these cases in a much earlier stage by this means than if a cutting operation is insisted on.

Second, in my estimation, for a certain class of cases this plan is far more certain of cure than when excision is attempted. I have seen a number of cases of epithelioma which had been operated on with the knife by surgeons of repute, where the disease had returned, but in at least a dozen cases in which I have employed this method the disease has remained absent, and some of them were treated a number of years ago. In one instance only have I known any relapse, and this patient was seen but once in consultation, and the application was made by the physician in the country, and the subsequent treatment also superintended by him; and in this instance I attributed the return of the disease to the faulty method of the application and the later poulticing, rather than to any failure in the plan itself; for on seeing the patient recently, fifteen months after the first visit, I found that all my directions had not been followed. The patch which had returned, however, was very insignificant, and will, I am sure, be recovered completely by the second or more perfect application.

A third advantage, which at times may not be an unimportant one, is that the cicatrix left by the method of procedure em

ployed in this case is as a rule very slight and supple. The caustic destroys only the epitheliomatous structure, and the slough that separates represents this and nothing more, whereas with the knife one always goes some distance outside of the diseased portion to insure its complete and perfect removal. You would be surprised if you could see some of the cicatrices left after this method, and compare them with photographs of the original disease; in some instances they are hardly visible.

In regard to the safety of this caustic, I may say that within certain bounds it is absolutely safe. I have seen arsenical symptoms produced in one case, but they soon passed away. Marsden, who has used this means for more than seventeen years, says that it may be applied with safety to a patch one square inch in surface, and I have never exceeded this limit.

You know, of course, that such cases as the one before you should never be wrongly meddled with: it is always well to bear in mind the old names of such growths, namely, *noli me tangere*, touch me not, for unless you are going to utterly destroy them, you must not touch them with caustic. Superficial cauterization but aggravates the trouble; the disease spreads in depth and breadth; it will certainly not heal under nitrate of silver or anything short of deep destruction; and I caution you not to meddle with such patches, or you will cause them to develop into such formidable affairs as are represented in the pictures now in your hands, and in the model. Remember also that there is no spontaneous tendency in them to disappear, although this form of new growth may heal in one place imperfectly and spread on another, until a considerable surface has been traveled over.

CASE II.—*Psoriasis Treated by Chrysophanic Acid.* The next case which I wish to show you is also one which you have seen before—one of the orderlies in the wards, who has psoriasis. He is, as you see, about thirty years of age, and for several years has had a slight amount of eruption upon him. Besides the interesting feature of the complete removal of the psoriasis on some portions of the body by only three or four applications of the chrysophanic acid ointment, I wish again to call attention to the somewhat unusual character of the eruption itself as regards its distribution.

He has really very few patches upon the entire body: here on the right leg you see the main portion of the eruption, and that

for which he first sought my advice. The reason why you see so much of the disease here now, is because, in the early application of the remedy, he so irritated the skin as to cause a deep inflammation, which finally resulted in this small ulcer by the side of the patch, which is now almost healed. This is the first time I have seen such a result to follow the use of chrysophanic acid; and the reason is probably that being nurse in the wards and being obliged to be constantly on the feet, the ordinary causes of ulcers of the leg operated very forcibly, and conjoined with the new irritant the ulcer readily resulted. While it is healing we have been obliged to abstain from the use of the remedy in this locality, which permits us to view the disease here in a tolerably well-marked stage.

Here, then, upon the middle of the front of the right lower leg, you see a number of patches, four or five, of a scaly eruption on a red base. Each spot is almost or quite circular, their grouping forms an irregular figure; each has cleared up somewhat in the center, so that we have rather a congeries of rings. Each of these represents spreading patch of psoriasis, and you notice that the scales on each have the well-known pearly, imbricated character, and that on scraping the surface moderately with the curette we get the little membrane beneath, slipping off and leaving the exposed corium, which a little more scratching causes to bleed very readily.

Look now at the back, and you will see where there were formerly two or three similar patches of psoriasis: I say where there *were*, for now you can distinguish their position only by these light-colored, almost white islands of skin in the midst of a brownish purple discoloration; you see no redness, no scales. The discoloration is the result of the chrysophanic acid, which always has this peculiarity of staining, reddening, and inflaming the tissue around the psoriatic spots, at first leaving them (the spots) of a much lighter color. Now, if you stop the application of the remedy at the present stage, you will have accomplished little or nothing; the disease will pretty certainly return in the same patch, and that very shortly. If, however, you continue the application, rubbing in the salve well, for several days longer, you will find that all this surface becomes evenly stained, and then on ceasing treatment the eruption will be no more likely to return here than elsewhere; and, strange to say, you may sometimes cause the entire removal of the

eruption by this means alone, and its apparent cure. I say apparent cure, for time sufficient has not elapsed yet since the first introduction of this remedy to allow a sufficient number of cases to accumulate and to remain well for a long enough period of time to allow us to make any definite assertions on the subject. You must ever bear in mind that the removal or disappearance of an eruption of psoriasis is by no means synonymous with a cure or removal of the disease: for, as you know, the eruption in some cases disappears spontaneously from time to time, only to reappear at a subsequent season. Remember, also, that during acute febrile attacks of other affections, an eruption of psoriasis very commonly vanishes for the time, almost as if by magic, but just as surely to make its appearance on recovery from the intercurrent disease.

The only other patches which this patient had were two small spots near the elbows, which, as you see, have about disappeared, as he says, under the applications of the ointment, and a moderate eruption of similar patches on the scalp, which he has shown me to-day for the first time.

The strength of the ointment he has used is half a drachm of chrysophanic acid to the ounce of simple cerate. To obtain the greatest efficiency from the drug, it should be *dissolved* in the ointment by heat, with stirring until it is cold. The applications are made once or twice a day, the surface being first washed to remove entirely the scales before a fresh application is made. He has received no internal treatment, nor has there been any variation made in his diet or mode of life: not that I think these unimportant matters, for I have repeatedly impressed the contrary upon you, but the local treatment has been employed alone in order that you might observe its effect and be sure that it was uninfluenced by other measures.

The ulcer on the leg has nearly healed, and we will direct that he keep it covered with a bit of plaster, and treat the eruption on the leg as vigorously as he is able, without exciting too much irritation.

CASE III.—*Syphilis of the Palm*.—The eruption seen on the palm of the right hand of this woman, thirty-eight years of age, would puzzle most of you who had not previously seen the lesion or attended to a careful description of its peculiarities.

The woman has a syphilitic history, and has been under my care at Demilt Dispensary for syphilis for many months: she

is irregular in her attendance, and as a consequence I have been able to watch this very eruption for some considerable time; for it varies continually, just in proportion to her neglect of treatment. At times it has been almost well, again the hands have both been so affected that work was almost impossible.

The condition which you see on this palm may be thus described: About two-thirds of the surface is covered with an eruption composed apparently of partially-destroyed epidermis, seated upon a moderately reddened base. Some of you would call the condition psoriasis palmaris at once, or possibly dry, chronic eczema of the palm, but if you will examine the surface more carefully with me, you will see features which I wish you to bear well in mind, because they may help you another time to make the diagnosis of general syphilis on an occasion when it might be of the utmost importance; I refer to instances where obscure diseases of the eye, nervous system, etc., occur, whose history and nature may be quite cleared up, as well as the disease removed, if the existence of syphilis can be established. As I well remember in the case of one gentleman, in whom choroiditis, which had greatly damaged the sight of one eye and threatened the other, was recognized as syphilitic and arrested, on the strength of a palmar syphiloderm with which I had seen him a year or so previously.

Here, then, on this woman's palm you see a number of places where the normal epidermis is absent, and the surface exposed is of a deep, purplish red, with a margin of raised dead epidermis. If you look more closely you will see that the spots are each the seat of a separate papule, or papulo tubercle, and that their arrangement in a row or part of a circle gives the appearance as though there was a large area of skin affected. But notice that the epidermis between these masses is really healthy, and that we can distinctly map out the separate tubercles of which it is formed. Notice, now, as I seize the slightly elevated epidermis at the edge, and attempt to peel it off, how it runs down into healthy tissue and I cannot tear off what appears to be the loose border without doing violence to the tissue beneath; for, as you see, it gives her pain, and tears down into the skin deeper and deeper. This is owing to the nature of the lesion, which is a new deposit in the rete, which raises the comparatively healthy epidermis above it. In this way the nutrition of the epidermis is interfered with; it dries and cracks, but still remains firmly adherent at the edges, which gives the

characteristic appearance to the margin of this squamous syphiloderm.

Remember, then, when you see such an eruption on the palm or sole, to scrutinize it carefully for the features which I have pointed out; namely, the separate character of the lesions which compose it, arranged generally in circles or parts of circles, and the peculiar condition of the epidermis, raised, as it were, by the new deposit beneath, giving rise to the sharply defined, punched-out border, as seen here. This, with the history of the case, the absence of itching (as a general rule), the absence of anything like vesicles or minute papules, and the absence of eczema elsewhere, should always make you very cautious, and lead you strongly to suspect syphilis.

The margins of eczematous patches are never so clearly and sharply cut as in the syphiloderm, it being a clinical feature of eczema that the border between healthy and diseased tissues is never accurately defined. You are far more apt to have long and deep fissures in eczema than in syphilis of the palm; here you see a number of cracks, but they are not very deep, and are only across a single tubercle.

I trust you will *not* call this lesion *psoriasis palmaris* when you see it, for syphilis can never cause psoriasis either on the general surface or on the palm or sole. You are already too familiar with the appearance of psoriasis to render it necessary for me to detail its clinical features now, and I trust that you will maintain your ideas of disease with sufficient clearness not to apply the name of one disease adjectively to another, some of whose phases may resemble it to a greater or less extent; thus, the name syphilitic lupus or syphilitic acne is quite as inappropriate as syphilitic psoriasis.

In regard to true palmar psoriasis, in the first place it is exceedingly rare to find it disassociated from psoriasis of the body or limbs or head. Some authors affirm that it is never found except thus connected. When true psoriasis does affect the palms or soles, it presents of course the same pathological anatomy as in other parts, the same increase in the size of the inter-papillary spaces, with corresponding enlargement of the papillæ. The same clinical features will therefore be presented, modified of course by the thicker and tougher epidermal layer. Hence in psoriasis of the palm or sole, true psoriasis palmaris, we find the same circular patches as in ordinary psoriasis, increasing peripherally (while the syphilitic eruption enlarges by the addi-

tion of new tubercles), the epidermis is loosened and white, and when removed the surface is rather depressed. There are also generally a number of patches, standing quite distinct and separate from each other, each, as a rule, much smaller than any seen in syphilis.

I can hardly impress on you better the importance of recognizing the syphilitic nature of such lesions as these than by briefly alluding to one or two cases which rise to my mind, that have been under my care within a recent period. In one instance a woman came with a similar eruption, covering almost the whole right palm, which almost incapacitated her for work. It had existed for about three years, and she had been twice in a hospital on account of it, for periods of three and six months respectively, and had never previously had anything but local treatment, the nature of the affection probably not being recognized. The effect of proper remedies, internal entirely at first, was almost marvelous, the lesion fairly melted away. In another instance, a woman of about forty had both palms affected characteristically: the diagnosis was made and very rapid improvement at once followed specific medication. At one of her visits she casually mentioned that her husband was helpless, having a sort of paralysis. From a brief account of the case I suspected syphilis, in part of course from her own trouble, and on visiting the patient confirmed the suspicion; and in six weeks the man, who had been ill and helpless for several months, from becoming progressively worse was restored to perfect health; the clue to the case was found on the woman's palm.

In regard to the treatment of these cases, the internal, anti-syphilitic treatment is by far the most important. And these cases require the mixed treatment, mercury with iodide of potassium, in doses suited to the case. I always give iron, bark and nux vomica at the same time. I have seen several of these cases recover entirely without any local applications; indeed, in one instance, the patient being a silver-plater, his hands were even kept in acid much of the time. But you may hasten the recovery by local means, and mercury should always be a constituent of your ointment. The oleate of mercury is a cleanly and effective application; generally the ten per cent. solution can be borne, or the five per cent. will answer. Ordinary mercurial ointment, diluted one half, or citrine ointment also diluted, is very effective.

CASES FROM PRACTICE.

INTESTINAL OBSTRUCTION—OPERATION.

BY J. H. STAPP, M. D., HIGGINSVILLE, MO.

On the 22d day of July, 1879, I was called to see H. N., a fireman, aged 50 years, who had been taken about twelve hours previously with severe pains in the abdomen, attended with vomiting. He had previously partaken of a full supper, consisting mainly of green corn, cucumbers, and other vegetables. He had always been healthy, with the exception of an anal fistula, and a small "inguinal hernia."

I carefully examined the seat of the hernia, but found no protrusion whatever. I administered a full dose of morphia hypodermically, at the same time gave a large enema of warm water. The water was soon discharged, bringing only a small amount of fecal matter. The injection was repeated with an increased amount of water, but the morphia had taken effect by this time and the patient had fallen asleep, so I left, hoping on my return to find the patient improved. I saw him again in a few hours; he was then suffering excruciating pains in the umbilical region; the injection had passed off with no fecal matter. I gave a large dose of castor oil, also a dose of morphia hypodermically, repeating the injection at various times through the day.

On the following morning I found the patient's condition unchanged, pains in abdomen absolutely unbearable, unless relieved by full doses of morphia; stomach rejecting every thing, even small quantities of ice. A full dose of calomel was now given, and through the day croton oil, and large enemata. Blisters were applied to the abdomen, warm baths were given, and various other expedients resorted to, but nothing accomplished the object sought. The patient's condition was growing worse; the abdomen was very much distended with a liquid effusion; the vomiting was almost incessant. The color of the vomited matter, which was at first green, was now yellow, with a

decidedly feculent odor—the latter symptom alarming both patient and friends to the highest degree. An œsophageal tube was introduced into the bowels, and six quarts of water thrown up; at the same time four ounces of metallic mercury was given, and repeated every three hours, until twelve ounces were taken.

On the following day the patient was very much exhausted, having been for five days unable to retain anything on the stomach.

On consultation with Drs. Emison and Seeber, it was determined to cut down at the seat of the old hernia; for while we were unable to discover any protrusion, it was thought that a knuckle of intestine so small as to escape detection, either by sight or touch, might be strangulated at the internal ring. The patient was accordingly anæsthetized and Dr. Seeber performed the usual operation for inguinal hernia. On reaching the internal ring a small process of omentum was found protruding, but in no way constricted. As soon as the sack was opened, two pints or more of serum escaped, at once relieving the distention of the abdomen, and allowing the return of the omentum. It was not deemed prudent to make any further exploration for the cause of the obstruction. The wound was closed and dressed in the ordinary way for operations of that nature. On the patient's regaining consciousness he expressed himself as feeling much better. The vomiting, which had been such a distressing symptom before the operation, entirely ceased. A small quantity of milk and lime water was given, and well borne. About three hours after the operation he had a free evacuation from the bowels, which evidently came from above the obstruction.

On the following morning all the symptoms were more favorable, with the exception of a hiccough, which had been more or less troublesome for several days. The distention of the abdomen had disappeared; pain was entirely relieved; temperature very little above normal. He was now taking beef essence, milk and whisky, all of which were retained and apparently assimilated. The bowels continued to move two or three times daily, passing considerable quantities of mercury with each motion. The temperature remained normal, except a rise in the evening of a half or one degree, and everything led us to hope for a favorable termination; but in this we were disappointed,

for in spite of stimulants, tonics and nourishment, the patient continued to grow weaker, and finally succumbed, on the eighth day after the operation, and the fourteenth day of the attack, without a symptom of peritonitis. A *post mortem* examination, though strongly insisted upon, was denied. I was thus unable to determine the condition of the bowels, and I am still at a loss to account for the improvement in all the symptoms, following an operation which appeared so negative in results at the time it was performed.

GUNSHOT WOUND.

BY ALVA WALKER, M. D., GIRARD, KAS.

L. R. B., aged 17. Two charges of mixed shot were discharged into the right leg, entering at the anterior and lower border of the middle third, and passing upwards and backwards to the lower border of the upper third; about one and one-half drachms of the shot laying against the inner side of the skin in this position: On laying open the wound, about one and one-half inches of the tibia was found to be shattered into splinters, also the same amount of the fibula was found in like condition. The anterior and posterior tibial arteries were torn away for one and one-half inches in their course; the peroneal artery escaping, owing to its deflection to the inner side of the leg in this position. Muscles, nerves and tissues were torn and lacerated in a terrible manner. A track was torn through them 1 by 1½ inches in diameter, and its course strewn with fragments of bone, shot and small portions of paper (wadding) leather and cloth.

A large amount of blood was extravasated into the tissues below the knee. After the first two days the patient rested well, and complained of scarcely any pain, or even feeling in the limb, except upon pressure. On the fourth day amputation was performed above the knee, an antero-posterior flap being formed.

Peculiarities.—Upon tying the arteries, the femoral was first ligatured, next the profunda femoris; and upon relieving the pressure above we were surprised at the jetting of an artery equalling in size the femoral. Upon dissecting out the course of

this extra artery, it was found to pass downward through the popliteal space, and descend to form the anterior and posterior tibial arteries. Is not this rather unusual? Gray speaks of the femoral artery dividing to unite again in the popliteal space, but does not speak of the extra branch going to form, as in the above case, the anterior and posterior tibial arteries.

TRANSLATIONS.

From the German, by C. A. TODD, M. D.

THE LAW GOVERNING THE ENTRANCE OF NERVES INTO MUSCULAR TISSUE—G. SCHWALBE, JENA.

Schwalbe prefaces his article with the statement: The question, at what points the motor-nerves enter their proper muscles, has been up to the present time, anatomically speaking, as good as neglected; so far as I know, the attempt has never yet been made to arrange the numerous facts under a general law. The point of entrance is determined, essentially, by the form of the muscle. According to the investigations of Kuehne, a regularity in the distribution of the terminal motor-plates over the length of the muscular fibre is to be observed. The regularity consists in this, the extremities of the muscular fibre are free from contact with the nerve over an equal extent, and the nerve-plate itself extends in both directions equidistant from the middle point. From these observations it is evident that in the case of a muscle whose fibres are parallel and of equal length, the innervation will be best accomplished when the nerve enters the muscle at its central point.

1. Muscles of uniform width and thickness, with parallel fibres, exhibit the nerve entrance at their middle; *e. g.* *Teres Major and minor*, *Teus. fas. latæ*, the ocular muscles in part.

(a). If the muscles are very long, as the *Sartorius*, several nerve branches enter independently. These form a "nerve-line" parallel to the course of the muscle fibres, whose termi-

nal points are nearly equi-distant from the proximal and distal points, respectively, of the muscle itself.

(b). If the breadth of the muscle exceeds 2-3 c. m., several nerve branches enter, forming a nerve-line at right angles to the course of the fibres, and equi-distant from the muscle extremities; *e. g.*, *Glut. max.*

2. Trilateral muscles exhibit the entrance-point transferred towards the point of convergence of the fibres, the transference being the more marked as the convergence is the more pronounced, provided the fibres do not distribute themselves superficially at the tendinous insertion. Trilaterals exceeding in width 2-3 c. m. possess a "nerve-line," which, generally, is advanced towards the pointed extremity in those muscles taking origin from an extensive surface of very varying distance from their point of insertion. In such muscles, notwithstanding their progressive contraction in form, there is an increase in tissue and volume in the same direction, and consequently the nerve-entrance must be advanced correspondingly; *e. g.*, nerve-line of Subscapularis, 98, 80, 51 m. m. from the broad surface of origin of the triangular mass; 42, 38, 42 m. m. from the insertion. Other triangular muscles, as the adductors of the thigh, whose broad side springs from a bony ridge, exhibit only a slight advance towards the smaller extremity (*add. brevis*, nerve 57 from proximal, 63 from distal attachment.) The relation of the "nerve-line" to the middle point of the fibres is well shown in this group, especially in the *add. mag.* which is composed of long and short fibres, and has a "nerve-line" running exactly equi-distant between the ends of the various component fibres.

3. Spindle-shaped muscles, pointed at both ends, as *lumbricales*, *semi-tendinosus*, long head of *biceps femoris*, etc., exhibit the nerve-entrance in the middle of the muscular belly.

All these rules may be brought under one common principle, *i. e.*, the nerve enters the muscle at its geometrical central point.

As to the question whether the nerve enters its muscle at the external or internal surface, Schwalbe decides in favor of the latter view for the most of the human muscles, but the rule does not hold universally good. In conclusion, some practical considerations may be pointed out; the discovery of the exact entrance of the muscle nerve is facilitated by simple inspection

of the geometrical form; nerves of sensation, although perforating the muscle, may be distinguished, since they do not conform to the law; finally, doubts as to the innervation of a muscle by various nerves are resolved. The law of a fixed geometrical relation between nerve and muscle is fitted to give a broader basis for the belief held by Gegenbaur and his school, in the importance of the motor-nerves to the study of comparative Myology.—*Archiv f. Anat. u. Phys.*, Jahrg, 1879, p. 167.

From the French, by E. M. NELSON, M. D.

MENSTRUAL ICTERUS. BY DR. JULES ROUVIER, OF MARSEILLES.

Bianchi saw a jaundice recur every month, each attack lasting four days; and Delondre has observed likewise a menstrual jaundice in a woman of 42 years, whose menses were suppressed.

Senator has collected four observations of simple icterus, returning periodically at the menstrual epochs. He had to do with women menstruating irregularly, in whom the icterus had for its origin a congested state of the liver.

Senator attributes this hepatic congestion to the same physiological cause which produced the catamenial hæmorrhage. He based this opinion upon the two following facts:

1. The icterus and the phenomena of hepatic hyperæmia ceased at the time of the menopause in all these women.
2. There was a sort of relation between the aggravation or amelioration of the icterus and the augmentation or diminution of the menstrual flow.

Dr. Rouvier then quotes two cases reported by Fasbender, in one of whom, a married woman, after her third confinement, the menstrual flow became less in quantity but was accompanied by a moderate jaundice. After treatment for four months with iron internally, and the application of a Hodge pessary to the retroflexed uterus, the menstrual flow became normal in quantity and the jaundice ceased to recur.

The other case is that of a young woman 18½ years old, in good health. She had menstruated since the age of sixteen years, always regularly, without pain; the quantity of blood lost was medium. For more than a year, at each return of the epoch, she was taken with a decided jaundice. Fasbender saw

her once; there were no gastric symptoms; the hepatic region was scarcely sensitive to pressure. Biliary matter was found in the urine. The uterus was slightly anteflexed, without any other lesion of the genital organs.

In his own case the woman was 30 years of age, the mother of three children; menstruated regularly every month for four days. Immediately after the cessation of the flow each month, for eight months, jaundice had occurred, and after continuing a few days disappeared without leaving any traces. The appearance of the icterus seemed to have exerted no influence upon the quantity or quality of the menstrual flow. Examination of the liver showed nothing abnormal. This case differed from all the others in that the icterus followed instead of accompanying the menstruation.

Evidently the cause of this icterus, like all varieties of icterus, is an obstruction to the secretion of bile by the liver. Under the influence of vaso-motor troubles, is produced a congestion of the hepatic organ; and in consequence compression of the biliary canaliculi, &c., the vaso-motor troubles depending upon menstruation, [hystero-neuroses] since they appear regularly with it. The congestion of the liver is then supplementary, and analogous, as to its pathogeny, to those which we have described in connection with menstrual deviations. This congestion is indeed a veritable deviation of menstrual flux which differs from other deviations in only one point. In ordinary irregularities, the apparent symptom is hæmorrhage, external or internal; here the apparent symptom is icterus—result of the congestion, (consequence like the hæmorrhage of vaso-motor troubles, but less intense.)

The prognosis of menstrual icterus is benign. In fact, in the four observations of Senator, the icterus appeared regularly until the menopause, and was followed by no accident.

The two observations of Fasbender, and our own likewise, show a great number of attacks without any unpleasant sequel. It would be well, however not to be too positive with regard to the benignity of the affection, for after these repeated congestions, the liver, like every other organ, might become the seat of various lesions.

The treatment of menstrual icterus is the same as that of catarrhal icterus. The only special indication is to insist upon emmenagogues in the last days which precede the menses.—*Annales de Gynécologie*, July, 1879.

ON THE NUMBER OF PULSATIONS OF THE HEART OF THE FŒTUS IN RELATION WITH THE SEX OF THE INFANT. BUDIN AND CHAIGNET. (*Society of Biology*).

Frankenhausen in 1859 said, 'below 144 pulsations per minute, you can predict a boy; above 144, it will be a girl.'

Different authors have since discussed this theory, some affirming, others denying the possibility of diagnosis of the sex by auscultation of the fœtal heart. Cumming, of Edinburgh, in a first series of researches relating to 61 cases, was able to predict 40 times correctly the sex of the infant, and was mistaken 21 times, or in one third of the cases; in a series of 51 cases he had only 23 correct results and 28 errors. In the total he had then 50 errors of diagnosis in 112 cases, which does not confirm the theory of Frankenhausen. But he sought another element of diagnosis in the weight of the infant, because he had remarked that having predicted a boy he had seen born a *large* girl. He came therefore to an affirmative conclusion in this sense, that the number of pulsations of the fœtal heart has a value for the diagnosis of sex, but that it is necessary to take account of the size of the fœtus, for, said he, with equal weight, the heart beats more rapidly in girls than in boys.

Messrs. Budin and Chaignet have ausculted on several occasions 70 women during their pregnancy, in the service of Depaul, at the Clinique; and it turned out that of this number there were born 41 boys and 22 girls. The study of the tables of their observations leads them to the following conclusions:

1. There is no relation between the number of pulsations of the fœtal heart and the sex of the infant. We find high and low numbers as well among the girls as among the boys.

2. In the same fœtus, from one examination to another, there are most frequently variations, and sometimes wide variations: *e. g.*, B.—30 November, 180 pulsat.; 8 December, 138 pulsat.; 12 December, 128 pulsat.; 14 December, 134 pulsat.

3. Still further; sometimes the observer, keeping his ear for several minutes in succession upon the stethoscope applied to the abdomen of the woman, lying quietly, obtains from one minute to another differences of 15 to 20 pulsations without his being able to find a cause for these variations, so that one is

then greatly embarrassed to determine the average of the pulsations.

4. There is no relation between the weight of the fœtus and the number of pulsations. A large number of pulsations does not indicate a small fœtus, and a small number of pulsations a voluminous fœtus. The proof comes from tables, where the boys and girls have been placed in order of weight:

The smallest boy weighed	2175 grams.	Pulsations,	132.
The largest “ “	4210 grams.	“	144.
The smallest girl “	2008 grams.	“	128.
The largest “ “	3650 grams.	“	140-150.

In consulting only the extremes, it would seem that inverse conclusions were reached to those of Cumming; but the intermediate observations offer such a variety, that, according to our judgment, there exists no relation between the weight of the fœtus, the number of pulsations of the heart, and the sex; and the accoucheur should cease to depend upon auscultation for the diagnosis of sex.

5. Having ausculted the same infant in the twenty-four hours which have followed delivery, they have found that in a general fashion the number of pulsations of the heart diminishes after birth, without its being an absolute rule.—*Paris Médical, in Archir. de Tocologie, July, 1879.*

ELEIDINE—A NEW SUBSTANCE IN THE SKIN.

At the meeting of the Academy of Sciences, in Paris, June 30, 1879, M. M. L. Ranvier presented a note upon a new substance in the epidermis and the process of hardening (keratinization) of the epidermic layer.

Vertical sections of the skin of man, made after congelation, drying, or hardening by alcohol, colored by a solution of picrocarminate (1 part in 1,000) show distinctly the structure of the derma and epidermis. The epidermis appears with its two principal layers: the mucous body of Malpighii faintly colored with red, and the horny layer, colored with yellow, striped with red. Between the horny layer and the mucous body are situated two accessory layers—on the side of the horny layer the stratum lucidum; on the side of the mucous body the stratum granulosum.

The stratum granulosum is formed of one, two or a larger number of layers of cellules slightly flattened, granular and colored bright red with carmine, while the other elements of the skin are scarcely tinged. By means of strong magnifying, one can readily recognize that in these cellules the coloring affects especially the granulations which they contain. This fact is seen still better in the integument of certain animals. In the interior of these cells there exists, under the form of drops, a peculiar substance which is strongly colored red by carmine.

The stratum lucidum, in the preparations of the skin of man obtained by the method indicated, is at first colored yellow almost uniform; but soon, the coloring matter continuing its action, one sees produced in the neighborhood of the stratum granulosum, and upon the surface of the section (upper or lower), drops which are colored red like those which are in the cellules of the stratum granulosum. These drops are few.

This substance, like oil, the author has named éléidine. Eléidine is formed in the stratum granulosum and disappears in the horny layer; it plays then an important role in the process of hardening of the epidermis.—*Archiv. Gen. de Med. Aug.*, 1879.

DEATH FOLLOWING USE OF RECAMIER'S CURETTE.

M. Variot reports a case occurring in the service of M. Gosselin. A patient who had suffered from persistent metrorrhagia was treated with Recamier's curette, on the supposition that there might be granular or fungous degeneration of the endometrium. No such condition was found. On the following day there was some pain and tympanitis and very marked prostration, which continued for a week, when she was attacked with severe chill and other symptoms of pleurisy. Two days later she died. At the autopsy there was found an abundant effusion of pus into the pleural cavity. There were also pus and false membranes in the true pelvis, and pus in the Fallopian tube, and in the cavity of the uterus. A fibrous polypus with a large pedicle was discovered in the cavity of the uterus. The doctor considers the operation with the curette to have been the cause of the suppurative inflammation.—*Gazette Medicale—Archives de Tocologie.*

 EXTIRPATION OF UTERUS.—CÆSARIAN SECTION.

Dominique Tibone, Professor of Obstetrics at the Royal University of Turin reports a case in which he has performed the operation of removing the uterus as a complement to the Cæsarian section, after the method proposed and first adopted by Porro in extreme pelvic deformity. The patient died about thirty hours after the operation. He has another similar case, which, after a variety of complications, was in a fair way to recover, six weeks after the operation. He promises a full report when the result shall appear.—*From the Italian in Archiv. de Tocol. July, 1879.*

From the German, by EDW. EVERS, M. D., St. Louis.

 A FISTULA BETWEEN URETER AND UTERUS—EXTIRPATION OF THE KIDNEY—RECOVERY.—BY DR. ZWEIFEL (ERLANGEN).

This is the eighth case of this kind recorded in our literature. W. A. Freund (Strassburg) has written an able article on fistula between ureter and uterus, in the *Berliner Klin. Wochenschrift*, No. 69, p. 50. Freund himself has reported three cases, one of which terminated fatally, and thus afforded an opportunity of studying the anatomical relations of the parts affected. He concluded, and Zweifel corroborates the statement, that a fistula of this character can arise only after the parametrium or parts about the fistula have already undergone pathologic changes; *i. e.*, after the ureter, by cicatricial contraction, has been drawn over to the uterus. The first case of this kind that was cured, accidentally, was that of Duclout. [*Gaz. de Paris*, 1869, *Sept.* 13.] After vainly trying to heal the fistula by cauterization, Duclout closed the os uteri with sutures. The menstrual flow subsequently ruptured the sutures, but the fistula had healed. The lower part of the ureter had remained permeable, and there was only a small fistulous communication between ureter and uterus, which had accidentally been included in the sutures. The case of Kurz (Tübingen) was not relieved. In six of seven cases reported, the left ureter was the one affected.

The patient who came under the care of Prof. Zweifel had been delivered five times. There had been trouble after every delivery. Immediately after the last delivery (forceps) the fistula was discovered. A catheter was passed into the ureters (Simon's method), and a rupture of the left ureter was found. Occlusion of the os uteri failed. Rutenberg's method likewise failed. The woman then became pregnant. Artificial premature delivery (Kiwisch's method) was resorted to. The os uteri was so narrow as to present all the clinical symptoms of conglutination. Confinement normal. The cervical canal was laid open, and yet the fistula was not located. It was then determined to make a vesico-uterine fistula, and to close the os uteri below the point of communication. The preliminary attempts to dilate with sponge-tents proved the infeasibility of this plan. A pelvic abscess resulted. The patient refusing to permit the formation of a vesico-vaginal fistula and transverse obliteration of the vagina, the author determined to extirpate the kidney. Simon's merits in regard to this operation are referred to, and the anatomy and method of operating are given in full. A wood-cut is added, showing the relations of the fasciæ, a knowledge of which is of the highest importance. The kidney, which was removed, measured 76 mm. in length, 32 mm. in breadth and 23 mm. in thickness. The excreting substance was completely atrophied, and all that was left consisted of the renal pelvis and its numerous diverticles.

During the process of healing, the ureter acted as a natural drainage tube, pus escaping through the vagina. A piece of rubber drainage tube remained in the wound without interfering with the process of healing.

The seven cases previously reported are as follows: 1. Simon, for fistula of ureter into abdominal cavity; recovered. 2. Simon, for renal calculi; died. 3. Bruns, for gun-shot injury; died. 4. Peters (New York); died. 5. Durham, for renal calculi. 6. Jessop (?) 7. Langenbach; recovered.—*Arch. für Gynäkologie*, B'd xv., No. 21. Reviewed by Fritsch, in *Centralblatt für Gynäkologie*, August 2d, 1879, pp. 403-4.

REPORTS ON PROGRESS.

MONTHLY REPORT ON THE PROGRESS OF THERAPEUTICS.

Therapeutical Uses of Pilocarpine.—SPILLMAN collates and reviews the alleged therapeutical effects of this valuable alkaloid of jaborandi. The chlorhydrate of pilocarpine exerts, especially when injected under the skin, a powerful sudorific and sialogogue effect. According to the dose injected, the sudorific effect may be general or localized to any part of the body. Morphine, and more especially atropine, when hypodermically injected, rapidly neutralize its effects. They are to be considered as antidotes. In consequence of its sudorific and sialogogue effects, it has been used with more or less benefit in a great variety of diseases; for example, in Bright's disease of the kidney, the sequelæ of scarlatina, heart diseases, typhoid fever, angina catarrhalis, acute articular rheumatism, neuralgias, parotitis, œdemas and dropsies. Its effects in pleural effusions are, at best, doubtful.

As an oxytocic, it has lost much of its temporarily-acquired reputation.

In some cases of saturnine colic, it has rendered good service by its great power in allaying the colic.

Its effects on diabetes mellitus are nearly worthless, yet it promises well in diabetes insipidus.

Some chronic cases of intermittent fever seem to have been benefitted by this agent.

Three injections made for a disease of the eye in a bald-headed man sixty years old, resulted in a complete cure of the baldness within four months time.

The remedy was tried in another case of partial baldness, and after the lapse of some little time the bare spots were covered with hair.

If used in feeble patients, this agent sometimes causes dangerous and even fatal collapse. In diseases of the heart, it must be administered with especial care. Previous injections

of ether, however, appear to diminish its tendency to produce collapse.

Pilocarpine may be administered in powder, in doses from 1-3 centigrammes, every three hours.

R. Chlorhydrate of pilocarpine,	0 gr. 20.
Powdered sugar,	2 grammes.

M: Divide in ten doses.

Or, by hypodermic injections, in doses from 1-2 centigrammes.

R. Chlorhydrate of pilocarpine,	0 gr. 20.
Distilled water,	10 grammes.

Mix.

One cubic centimetre contains two centigrammes of pilocarpine.—*Arch. Gén. de Med.*, Sept. 1879.

Jaborandi in Cholera.—SIMMONS writes from Japan, that during the present epidemic of cholera there, he determined to test the virtues of jaborandi as a remedy in the disease. He found that, in the usual complete or partial suppression of urine, the drug excited the activity of the skin and salivary glands with almost equal frequency, and its administration was followed in some cases by a copious secretion of urine, with great relief to all the symptoms. Even when this fortunate result is not so fully obtained, there is, nevertheless, a less tendency to uræmic coma. When there is not too much prostration, the profuse perspiration which is induced, is attended after the first few moments with a decided improvement in the pulse; the sense of oppression is relieved, and a more natural re-action ensues than that due to alcoholic stimulants. In one case, in which there was almost constant vomiting, this symptom nearly ceased after $\frac{1}{4}$ gr. of pilocarpine had been given subcutaneously. The jaborandi has little effect in collapsed cases, and the writer thinks may precipitate the fatal termination.—*N. Y. Med. Record*, Sept. 1879.

The Hypophosphites in Phthisis.—COGHILL, Physician to the Hospital for Consumption, Ventnor, has investigated, clinically, the alleged curative properties of these drugs in phthisis, and has come to the following conclusions: They are powerless to check night-sweats, and are without influence in febrile conditions indicating advancing lung mischief. When judiciously employed, these salts have valuable tonic qualities, promoting the appetite, the digestion, and the assimilation, more espe-

cially of fatty food. They have strong heat-producing properties, acting, indeed, like phosphorus itself, which fact renders the hypophosphite of iron, particularly, a dangerous remedy in the arrested forms of the disease. None of these salts, owing to their pyrogenic action, should be used in cases where there is high temperature or increased frequency of pulse. But when the disease is arrested, they come into favorable notice as a means of stimulating the nervous system, and through it the subordinate processes of nutrition. The feeling of languor and lassitude, so often complained of by patients, is frequently greatly relieved, and, unquestionably, they have weight-making properties. They have no specific influence, either in arresting when in progress, or markedly promoting repair when stayed, the usual forms of pulmonary phthisis, whether tubercular or pneumonic. In short, their legitimate field of action is in incipient and in arrested consumption, where they serve an excellent purpose as general or nervine tonics, and perhaps even as tissue-builders.—*Lancet*, Sept. 6, 1879.

Ergot in Uterine Fibroids.—HERMAN says that the ergot treatment is free from risk, and that we should give it a full trial before resorting to surgical measures. The softer tumors, those which often give rise to much hæmorrhage, are precisely the ones most benefited by ergot. He thinks that the three following propositions are warranted by the facts before the profession: 1. That ergot will often produce the diminution in size, and sometimes even complete absorption of fibroid tumors of the uterus, and will, in the majority of cases, relieve their symptoms. 2. That these effects will often follow its use *per orem*, but more certainly by hypodermic injection near the tumors. 3. That all cases, except where surgical interference is absolutely needed, should have the benefit of the ergot treatment.—*Med. Times and Gazette*, Aug. 23, 1879.

Iron and Chloride of Ammonium.—STEWART makes the interesting statement, that the reception of iron by the system is greatly facilitated if chloride of ammonium be administered along with it. In those cases where iron is urgently needed, but in which it is not tolerated, producing gastric, hepatic and other disturbances, it will be readily borne in combination with the chloride of ammonium, in the proportion of one-half grain

of the ammonium to each minim of the tincture of the perchloride of iron.—*The Practitioner* (London), Aug. 1879.

Carica Papaya.—WURTZ and BOUCHUT have found that the milky juice of this plant has the property of digesting, within a few hours, at a temperature of 40° centigrade, raw meat, fibrine, boiled egg, albumen and gluten; also the false membranes of croup, round worms and tæniæ. They succeeded in isolating a ferment that distinguishes itself from pepsine, by digesting large quantities of fibrine, not only in slightly acid, but even in neutral and weak alkaline solutions. To this ferment they apply the name of *papaine*.

In another series of experiments, the fibrine was not only dissolved but transformed into peptone, *i. e.* completely digested.—*Gaz. Hebdomadaire*, Sept. 5, 1879.

Treatment of Hæmorrhoids.—ATKINSON advises calomel-dusting in the acute stage, and also sponging with hot water. In the subacute stage, the compound gall ointment, or a solution of lead and opium, should be freely applied, and an enema of cold water after each action of the bowels. In the chronic condition, he highly lauds the common pitch ointment, and thinks that the necessity for operative measures may often be averted by its timely use.—*Practitioner* (London), Aug. 1879.

Ethidene Dichloride as an Anæsthetic.—MACPHAIL has given this substance six times as an anæsthetic. In all the cases he got a uniform result—perfect anæsthesia, a regular pulse slightly quickened at the outset, quiet respiration, and the preliminary stage of muscular excitement reduced almost to a minimum, while the patients retained their normal color and appearance. In comparing ethidene dichloride with chloroform, the writer thinks that the former possesses the greater volatility and solubility, to which is perhaps due the rapidity of the action of the drug, and the subsequent rapid recovery, while from its greater stimulant action on the heart, as shown by the pulse, and its rapid elimination from the system, it is a safer anæsthetic to use.—*Edin. Med. Journal*, Sept. 1879.

EDITORIAL.

DR. A. J. STEELE, *Editor*.DR. W. A. HARDAWAY, *Associate Editor*PROF. E. W. SCHAUFFLER, M. D., *Corresponding Editor*.DR. I. N. LOVE, *Business Editor*.

"It is not so much what you ought to do, as what you ought to know not to do."—*Sir Benjamin Brodie, Lectures, 1837.*

SUBSTITUTION OF DRUGS IN PRESCRIPTIONS.

THE practice of substitution of drugs, in making up prescriptions, is a growing evil, and in some sections has attained such proportions as to seriously attract the attention of physicians. It generally occurs in cases where the druggist has not sufficient stock on hand, either through lack of capital or negligence. Under such circumstances, he does not refuse to fill the prescription, but uses his own discretion in selecting some substitute, which, in his opinion, will do equally as well. This may occur hundreds of times without the physician being any the wiser, and perhaps in the majority of cases no positive injury is done to the patient, for, in substitution, the more potent remedies will be avoided; but at times the omission of an ingredient in a prescription may be criminal, and the most serious results may ensue.

This practice destroys the whole value of medication, and places the life of the patient and the reputation of the physician at the mercy of the drug clerk compounding the prescription. The following instance occurring in this city, and under our observation, a short time since, illustrates fully the dangers of this abuse. A prescription of

R.	Quiniæ sulph.,	℥ij.	Grams.	2	50
	Strychniæ pur.,				
	Acidi. arsenosi,	āā.gr.i.			05 M.

Ft. pil. no. xl.

S: One to be taken after meals,—

was prescribed to a patient who was a physician. One pill was taken a short time after dinner. In about a half hour a violent pain in the stomach was experienced, with nausea and vomiting, and this was followed by cold sweats and symptoms of collapse.

As the patient himself had often prescribed the same prescription, he did not credit the drugs with being the cause of his symptoms, but rather ascribed it to a sudden attack of indigestion; he therefore took another pill after his supper, when there occurred a repetition of the same symptoms, only of a more aggravated character.

The prescribing physician called at the drug store at which the prescription had been compounded, and asked to see the arsenious acid used in the prescription. The druggist brought down from his shelves a *half-gallon jar containing about a quart of a steel-gray granular gritty powder.*

Here we have a clear case of arsenical poisoning, due either to the rascality or gross ignorance of the druggist—a substitution of cobalt or crude arsenic for arsenious acid. The life of the patient was put in peril, and had the patient not been a physician, the reputation of the prescribing physician would have been compromised.

Another and a less injurious mode of substitution is in substituting the preparation of one manufacturer when that of another is prescribed. We know of a case where a druggist urged a patient to take a preparation of *his own manufacture*, when that of a prominent eastern firm was distinctly marked on the prescription. A druggist may feel certain that articles of his own make are superior to others, or he may have such confidence in a certain manufacturer, as to deal solely in his goods; still every physician has his preferences, and his prescriptions should be filled strictly according to his written orders. He, and not the druggist, is the judge to decide on the choice. If he has not the article in stock, or cannot or will not get it, it is his duty to retain the prescription until he can get the consent of the physician to the substitution. If a prescription be of any value, it should be filled strictly according to letter, unless

of course there is an error in it that is perceptible to the druggist, and which may be injurious to the patient—but even if he fills it, the responsibility rests entirely on the physician.

We fully acknowledge the obligations which physicians are under to their druggists—for scarcely one has passed through many professional years without having, through ignorance or absent-mindedness, written a prescription, the strict filling of which would have entailed serious consequences, but which has been avoided, through the caution and knowledge of the dispenser.

Druggists claim that it is impossible to keep in stock the innumerable preparations that are constantly pressing their claims on the profession.

They assert, that physicians have their preferences, but that these preferences vary with fashion and often with the advent in the town of a drug-peddler, who, by personal solicitation draws their attention to the goods of his house, and that this preference simply lasts, until the next one comes around who convinces them of the superiority of his preparations.

They claim, that they keep in stock goods from respectable houses, and that the substitution does no harm.

We cannot recognize this claim, although it may seem to be just, for it opens a loop-hole for all and the worst abuses. Were all prescriptions filled at our leading drug-stores, by druggists whom we all recognize as honorable, competent pharmacutists, and who are strict as to the character and ability of the clerks they employ, we should perhaps not be justified in being so rigid in our demands; but when we consider that the mass of prescriptions do not reach such hands, that they are filled in the smaller drug-shops, with which the city abounds, we fully realize the dangers of the practice of substitution.

In this free country, the laws regulating the sale of drugs are so lax, as to encourage the very abuse of which we complain. Even when passed, they remain too often a dead letter on the statute books. The law entitled, “An act to

regulate the practice of pharmacy in the city of St. Louis," enacted February 1874, and amended February 28, 1879, is a move in the right direction. The word *substitute* should have been added to section 6 of said act—in the sentence "and should he knowingly, intentionally, and fraudulently (substitute), adulterate or cause to be adulterated, such drugs, chemicals, or medicinal preparations," &c., &c.

The Board of Pharmacy are honest in their endeavors to rectify the abuses of the drug trade, and we hope that they will see proper to incorporate such an amendment in the law. Prior to this legislation, the establishment of a drug-store required as little capital or experience as the starting of a corner grocery, and the result is, that the city abounds in cheap drug-shops, managed by men of little capital or experience, and whose stock has been purchased without regard to purity or quality. These establishments, by a steady course of under-selling and under-cutting, often succeed in drawing patronage from reliable houses.

The people, as a rule, fail to appreciate the value of purity or honesty in drugs, and go where they can buy the cheapest; and if the prescription fails of the desired effect, the blame is laid on the prescriber, not on the dispenser—on the doctor, not on the druggist.

It is in just such establishments that the dangers of substitution are most urgent—for where there is no capital the temptation to dishonesty is greatest.

Section 1 of the act regulating pharmacy, now requires a certificate of competency from the Board of Pharmacy for all engaging in the retail drug trade, but section 4 excepts those who have been engaged in the business one year prior to the passage of the act. The law, if enforced, will certainly be of benefit in the future, but the exceptions render it impotent to redress present evils.

As the laws are so inadequate, cannot the profession protect themselves and their patients? They can do it, if they will *positively order* all their prescriptions to be taken to a druggist, whom they know to be reliable and honest, and such can be found in every quarter of the

city. If they will urge on their patients the dangers they incur in patronizing *cheap* stores, and if they will refuse to let their prescriptions be filled by *any* druggist, who has been *detected* in substituting drugs, the prescription trade at least can be thrown into deserving and reliable hands; and besides serving to drive the Cheap-Johns from the trade, the profession will feel safer from at least the most dangerous forms^{or} of substitution in the compounding of prescriptions.

W. C. G.

BOOK REVIEWS AND NOTICES.

MANUAL OF THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY.

By STEPHEN SMITH, A. M., M. D., Surgeon to Bellevue and St. Vincent Hospitals, New York. 12 mo., fully illustrated. Price, cloth, \$4.00; roan \$4.50. *Houghton, Osgood & Co., Boston.*

We have examined somewhat carefully the above work, and can say unhesitatingly, that it is the best manual upon the subject with which we are acquainted. In something less than seven hundred pages, it describes clearly, yet concisely, almost every conceivable operation in Surgery, from the removal of an ovarian tumor or an amputation at the hip-joint, to the proper mode of introducing the hypodermic needle. Nor is it limited to the formal details of operations; the practitioner who takes up the work to learn the best method of operating in a given case, will find much additional that he will be glad to know, bearing upon the propriety of the operation, the indications for and against it, the best method of dressing, &c. The first eleven chapters are devoted to the principles involved in operative surgery. In Chapter I. the author treats of the obligation resting upon the surgeon, "both civil and professional, which, though implied, has all the force and validity of a formal contract;" and in a condensed, yet very explicit way, he gives the substance of the rulings of the courts as to what is demanded of the surgeon in the exercise of his profession. The young practitioner, ambitious to enter upon the field of surgery, will be warned by its perusal that it is in no sense a trifling responsibility he proposes to assume. In Chapter II. the importance of a thorough

examination and correct diagnosis is dwelt upon, while much stress is laid upon the disastrous consequences that may ensue, if from oversight, carelessness or want of judgment, errors in this direction are committed.

Under the head of Prognosis, the conditions which affect the success of an operation are presented with the conciseness and clearness that gives them almost the force of aphorisms. Chapter III. deals with the preparation for the operation, and the duty of the surgeon to secure every possible advantage which can in any way, however trivial, minister to success. For the benefit of the careless it is declared that "even a successful issue cannot justify the surgeon in subjecting his patient to an avoidable risk."

Full and complete directions are given as to the place of operating, selection of instruments, the details of the operation itself, and the after-treatment, the emergencies, bleeding, shock, collapse, air in the veins, &c.

The influence of meteorological conditions, the month, the day, the hour best adapted for operations, are pointed out. The barometer is declared to be the best guide, and attention is called to the curious facts observed by Dr. A. Hewson, that "the least mortality occurs with an ascending barometer; next when it is stationary; the mortality with a descending barometer is nearly three times greater than with an ascending barometer."

Repair, the conditions which favor it upon the one hand and those which retard it upon the other, are briefly, yet very effectively discussed in Chapter X. The latest doctrines bearing upon this subject, with their practical application, are embodied in the remarks upon normal repair, antiseptic and other dressings, fevers—traumatic, inflammatory, septic, pyæmic, &c. Speaking of the nervous affections following and complicating operative wounds, our author defines tetanus as a "spasmodic affection of the muscles, due to irritation of the spinal medulla and portio-minor of the fifth pair." The chief causes are declared to be cold and damp, and the injury of the operation. He says nothing of the very strong arguments in favor of its production by animal poison generated in the wound. But then it may be said that this is not a "treatise" upon surgery, and no space is available for discussion of controverted points.

Under the head of Treatment, he does not refer to chloral, yet we think it can be shown that more patients have recovered

within the last few years under its use than under any other single remedy.

Chapter XI. comprises, in the space of six pages, a lucid account of the process of cicatrization, the various forms of diseased granulations, with the appropriate treatment of each; skin grafting, and the morbid conditions which may present in the cicatrix.

Part II. is devoted to the osseous system, is divided into six chapters, which treat, under appropriate heads, of injuries and diseases of bones and joints, and operations upon these structures. With no portion of the work will the reader be more thoroughly satisfied than this. The most approved methods of treatment, the most efficient apparatus, the latest operations sanctioned by high authority, are succinctly given.

Psoas abscess, the dread of surgeons in the past, our author states may be freely opened under the Listerian precautions, without incurring the ordinary risks of profuse suppuration and systemic poisoning. If, however, antiseptics are not employed, he echoes the warning of the past, "Do not meddle with it, but be thankful for every day it remains closed and wait quietly until it opens."

In excision of the wrist he gives prominence to the elegant operation of Prof. Lister, infinitely superior to all other methods in advanced caries, at this joint, and applicable possibly to some cases of gunshot wounds of the carpus.

Time will not permit of referring more in detail to the many excellent features of the book, nor to point out a few notable omissions. Of the latter a single instance will suffice: For closure of cleft of the hard palats, the operation of Warren and Langenbeck, by muco-periosteal flaps only is referred to, no mention being made of that of Sir William Ferguson, (by cutting through near the alveolar processes and pushing inwards of the palate processes), which certainly has great advantages aside from the consideration due it as one of the latest among the many operative procedures for which we are indebted to that distinguished surgeon.

Dr. Smith's readers will thank him for taking a new departure in carrying out his views of what should be the scope of a work on operative surgery.

As we have said, it is not a treatise on surgery, yet the reader will find so much of surgical pathology, so much judicious dis-

cussion of indications pro and con, such clear exposition of the surgical anatomy, such thorough detail as to manipulations, methods of dressing wounds, and after-treatment, that he feels that he has the very essence of the whole subject before him, and is surprised and gratified to find it all in so small a compass.

All needless verbiage has of course been lopped off, and our author shows a marvelous faculty of condensation, while preserving all that is essential to a thorough understanding of the subject treated.

The execution of the work is all that could be desired. The paper is good, the type, though small, is marvellously distinct, and the wood-cuts in the main very creditable. The latter are numerous, and inserted wherever necessary for the purpose of rendering the text clear, illustrating new and needed instruments, or presenting distinctly to the eye the more obscure points of surgical operations.

The reference to authorities is profuse, showing extensive research, which, supplemented by the author's well-known reputation as a surgeon and teacher, inspires a confidence in the soundness of its teachings that must make the work an invaluable book of reference to all who are in need of such a guide.

T. F. P.

TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. VOL. 3.
FOR THE YEAR 1878. *Boston: Houghton, Osgood & Company, 1879.*

The annual volume of these Transactions is always looked for with eagerness by the medical world; the essays, reports, and debates, expressing the opinions and detailing the work of the active and eminent laborers in this department of medicine, combine to render the Transactions not only of scientific and literary value, but almost indispensable to any member of the profession who desires to render proper aid to those who entrust themselves to his care. In order that our readers may have some idea of the importance and scope of the work, which we cordially commend to them, we will refer at some length to several portions of the volume, acknowledging the difficulty of selecting from so much excellent material without doing some apparent, although unintentional injustice.

The address of Dr. Goodell, Vice President, follows the business minutes. It is replete with valuable suggestions. The

chief theme of the paper is a discussion of *Neurasthenia in relation to Uterine disease*; fortified by records of cases. Dr. Goodell's report of his observations and conclusions is most valuable, not only to the specialist in Gynæcology, but particularly to the general practitioner, who is so frequently baffled by cases which defy his best-judged plans of treatment. Those who read this essay will certainly agree that there is no need of the apoïogy with which the modest author concludes.

Dr. J. C. Reeve reports a case of *perforation of the perineum, in labor, leaving the vulva intact*; of this rare obstetric accident the author has collected histories of thirty-five cases, a list of which, with bibliographical references, is appended.

Dr. J. Marion Sims contributes a carefully-prepared paper upon the *Operative Treatment for Stenosis of the Cervix Uteri*, describing accurately the conditions requiring surgical interference, and the methods of performance. His vast experience has demonstrated the necessity for great care in the after-treatment of such operations, in order to avert danger, which is more common than has generally been supposed, and which, by proper judgment in the selection of cases, as well as careful management, may be almost entirely avoided. Dr. Sims strongly advocates the adoption of the antiseptic or Listerian precautions in all such procedures.

The discussion upon this subject elicits the fact that the value of cutting operations is yet *sub judice*; and while in many instances the knife is the only resource, it is often doomed to disappoint the sanguine beginner in gynæcological surgery.

Dr. Penrose, of Philadelphia, furnishes an able paper upon *Postpartum Hæmorrhage*, recommending the use of common vinegar, applied to the uterine walls by means of a swab, as the remedy for this accident. This paper, following one from Dr. Wilson, of Baltimore, upon the use of "The hand as a curette," under the same circumstances, gave rise to a full discussion upon the various means for arresting the hæmorrhage. In the course of this debate Dr. Trask makes a very pertinent remark to the effect that the accoucheur is employed to meet *emergencies*, to be always prepared, and therefore he should never be without some reliable means of resource.

Dr. Emmet, of New York, presents a most valuable statistical analysis of one hundred and sixty-one cases of *Vesico-Vaginal Fistula*, from a study of which he adduces the fact that instru-

mental delivery is rarely, if ever the cause of the accident, but on the contrary, failure to use forceps sufficiently early is a frequent cause. He claims "that the damage is from impaction of the child's head, causing an obliteration, by pressure, of the circulation through the soft parts of the mother, and half an hour of this obstruction may cause the most extensive loss from sloughing."

The discussion of this paper developed the opinion of many eminent authorities upon the Forceps; and here, as in the mother country, where this subject has of late been the theme of prolonged debate, we find all shades of practice advocated, but yet a decided advance in the direction of more frequently giving instrumental aid in retarded labor. For the purpose of emptying the bladder before instrumental delivery, when by reason of pressure the catheter cannot be used, the aspirator has several times been used advantageously and without any ill results.

Dr. Byford, of Chicago, reports *four cases of ovariectomy* for that exceedingly interesting and curious pathological growth the "Dermoid." The various theories of the origin of these tumors are succinctly given by Dr. Byford in his paper, and by Dr. Noeggerath in his brief discussion, giving the result of the "researches of His, which have demonstrated that the genital organs take their origin in the axial chord; here in the central part of the ovum, the ectoderm, entoderm and mesoderm are in close proximity, and it occurs that cells from the first-named layer migrate to that part of the mesoderm from which the ovary is formed, and thus it is explained that skin, with its growth, develops occasionally in the ovary."

Dr. Richardson, of Boston, analyzes fifteen cases of *acute Parenchymatous Nephritis occurring during pregnancy*. In regard particularly to the proper treatment of this dangerous condition, he summarizes to this effect: 1st, that it is our duty occasionally to examine the urine of pregnant women; 2d, when the examination shows that the secretion is abnormal, it should be daily measured; 3d, whenever the daily secretion falls markedly below the normal quantity, we should endeavor to re-establish the impaired functions of the kidneys, or, failing in this, to supplant, if possible, their loss of action by the increased action of other secretory organs; 4th, in case all efforts fail and the amount of urine is very small and constantly

lessening, no matter whether at the same time the general symptoms of danger are increasing or not, we should not hesitate at once to induce premature labor.

Dr. Busey describes, with great care, a case of *alternating version of the uterus*, for the relief of which, so far as mechanical means were concerned, he favored Fowler's hollow pessary as the best; the subject receives accurate study of a character to commend the paper to the consideration of the practitioner.

The newly-revived operation of *Gastro-Elytrotomy* is admirably reported upon by Dr. Henry J. Garrigues, and the dangers and advantages of this, as compared with Cæsarean Section, are fully examined; diagrams of the anatomical parts involved in the operation are appended.

Dr. Albert H. Smith ably supports his views as to *the method of using the obstetrical forceps*, in a paper of some length. It is an axiom with the author that traction "*shall be made steadily in the median line, with no lateral or pendulum motion.*" He insists that the lateral motion is of no aid, and that if the head advances when it is used, that it does so in spite of it.

Dr. Henry F. Campbell, of Augusta, Ga., has a most interesting and valuable paper devoted to the explanation of *the mode of digestion in intestinal alimentation*, suggested particularly by the necessity of supporting patients suffering from nausea incident to pregnancy, by rectal nutrient enemata. The writer, by experiments and deduction, has satisfied himself that under certain circumstances there is a reversed intestinal action, which he terms "*retrostalsis*," which alternates with the ordinary motion "*prostalsis*." That in the early months of gestation reflected uterine irritation establishes an "*abiding tendency to retrostaltic action in the muscular tunic of the entire alimentary canal*" which is the origin of the nausea and vomiting of pregnancy, and that under the careful and systematic application of rectal alimentation, artificial abortion for the relief of gravid nausea can be banished from practice, even as a last resort."

One of the most important papers is that of Dr. I. E. Taylor, upon *the early delivery in placenta prævia*; accompanied by three well-executed plates, to demonstrate the condition of the cervix during the eighth and ninth months of gestation. The conclusions of the author are, that the cervix is "*only an annex; it is a passive organ; it is as much prepared physiologically, by its*

passiveness, to dilate, as the fundus, physiologically, is to contract." It does not form a portion of the cavity enclosing the fœtus, and does not shorten during gestation.

Treatment of Pelvic Indurations and Adhesions, is carefully and judiciously considered by Dr. Van De Warker.

Dr. A. Reeves Jackson has a very admirable and practical essay on some points in the *treatment of Sterility*, encouraging general constitutional treatment and *persistence* in well adapted methods.

Memoirs of the late eminent Fellows of the Society, Drs. Peaslee and Atlee, form a most interesting and valuable addition to the volume. Nothing more aptly stimulates young workers than the well-recorded histories of those who, by their greatness and goodness, have become proper objects of admiration and emulation.

Dr. Nathan Bozeman presents a paper upon "*The Mechanism of Retroversion and Prolapsus of the Uterus*, considered in relation to the simple lacerations of the cervix uteri, and their treatment by bloody operations," being his thesis upon election to Fellowship.

The volume concludes with a most valuable index of the gynæcological and obstetric literature of all countries for the year 1877.

To say of the mechanical execution of this volume, that it, as its predecessors, is from the Riverside Press, is sufficient to assure one of its excellence and elegance. G. A. M.

MATERIA MEDICA AND THERAPEUTICS OF THE VEGETABLE KINGDOM.
BY CHARLES D. F. PHILLIPS, M. D., F. R. C. S. E., Lecturer on Materia Medica, Westminster Hospital, London. Edited and adapted to the United States Pharmacopœia, by HENRY G. PIFFARD, A. M., M. D., Professor of Dermatology, University of the City of New York, etc.
Wm. Wood & Co. New York, 1879.

During the past few years Therapeutics has been making rapid strides, and the numerous facts brought to light, while they have extended over a vast field, have been of a most important character. Modern inquiry has resulted, in innumerable instances, in modifying or overthrowing views previously entertained. So rapid has been the progress in this department of medicine, and so numerous have been the works published, that the busy physician has scarcely had time to keep up with the progress that has been made.

To the new works of Wood, Ringer, Bartholow, Fothergill, Binz and Farquharson, which have appeared in rapid succession, we may now add the work of Phillips.

Prof. Piffard has taken great pains to adapt the work to the United States Pharmacopœia. He has also pursued the course so universally adopted by most recent writers, *i. e.*, omitting the botanical descriptions of the drugs. The remedial agents, however, are taken up and treated of in their botanical order, beginning with the Ranunculaceæ, thus following what is known as the natural order.

The author goes into no details regarding abstract questions, and does not encumber the pages of the work with his own or others' peculiar views or remarks. He proceeds at once to the subject matter, and gives that information which is the most useful and practical to the physician.

Each drug is taken up and treated of in the following order, and under the following headings: 1, Active ingredients; 2, Physiological action; 3, Therapeutic action; 4, Diseases in which it is indicated; 5, Preparations and Dose.

The above arrangement makes it a very convenient reference book, and more especially so since it contains an index of both medicines and diseases.

The book, however, belongs to the Wm. Wood & Co. Library Series,¹ and can be obtained by subscribing for the entire series.

Dr. Piffard states, in his preface to the American edition, that information has been received from the author, to the effect that the second portion of the work, devoted to the consideration of drugs of Inorganic Action is nearly ready for the press.

Judging from the volume already issued, I freely venture the statement, that the pair will form a valuable acquisition to the library of the physician who desires to have a ready reference for consultation and to keep up with the progress of the age.

J. P. K.

¹ Wood's Library of Standard Medical Authors, consists of twelve volumes, issued one each month, containing from 200 to 300 pages each, illustrated, and well printed and bound. The volumes are not sold separately, but are to be had by subscription only, at \$12 a year or for the set, equal to \$1 per volume; the cheapest and best works for the money that can be purchased.—ED.

CLINICAL MEDICINE: A Systematic Treatise on the Diagnosis and Treatment of Diseases, designed for the use of Students and Practitioners of Medicine: By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, etc. Philadelphia, Henry C. Lea, 1879. Price, \$4.50. (Through H. R. Hildreth Printing Co., St. Louis.)

The author of the above work has anticipated a want long felt by those for whom it was especially written—the clinical Student during his pupilage, and the busy practitioner. Especially is this true of the physician who often wants hastily to refer to the symptoms and treatment of disease, to refresh his memory, when he has not the time to read the more extensive works on practice.

After short preliminary remarks, the author begins the book with a chapter on Medical Examination, Clinical Records, Clinical Reports, Modes of Diagnosis, General Appearance of the Patient, Pulse, Temperature, Tongue, Sources of Error in Diagnosis, Simulating of Diseases, Objective Treatment, Hygienic Treatment, Source of Error in Therapeutics and Expectant Treatment. Each chapter, although brief, is full of practical suggestions and ideas.

The remainder of the volume is divided into sections corresponding with the different Physiological Systems, viz: Respiratory, Circulatory, Digestive, Urinary and Nervous.

Each section is prefaced by preliminary remarks relating to the symptomatology of the disease referred to in the section, with many valuable and practical suggestions in clinical study and treatment of the diseases properly belonging to the subject. All the diseases nosologically belonging to the section are referred to separately, giving diagnostic value to each symptom and its indication for treatment, with recommendation of remedies.

In his selection of medicines as remedies, the author recommends only those that are positives and have known effects.

Doctor Flint's previous study of the natural history of diseases, and his extensive experience and observation, eminently qualify him to write on Clinical Medicine. He has given to the medical profession a very necessary and useful work, complete in detail, accurate in observation, brief in statement.

J. M. A.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY: BY THOMAS ADDIS EMMET, M. D., Surgeon to the Woman's Hospital of the State of New York. With one hundred and thirty illustrations. *Philadelphia: Henry C. Lea*, 1879. (Through H. R. Hildreth Printing Co., St. Louis.)

This book has been eagerly looked for by all, and especially by those who are greatly interested in gynæcological studies. The long association of the author with Dr. Sims, as his assistant at the Woman's Hospital of the State of New York, from 1857 to 1862, and after this his joint membership with Drs. Sims, Peaslee and Thomas, of the Medical Board of that institution, till a recent date, together with his ever valuable papers on current topics related to gynæcology, have linked his name inseparably with the history of this branch of medicine for the past quarter of a century, and with the few in this country and in Europe who have contributed most to its acknowledged triumphs. Finally, and scarcely the least, unfortunately, his name has become more familiar to all, everywhere, because of his connection with the bitter personal controversy among the members of the Medical Board of the Woman's Hospital, in which he is, unjustly we believe, placed in the unbecoming attitude of one unmindful of past ties and insensible to past favors. It can hardly be denied by the reader of this book, we think, that the unsparing credit accorded to Dr. Sims, throughout the entire book, is ample proof of his gratitude and unfailing regard for his former friend and patron.

As might have been expected, the work is eminently practical, the material having been drawn from the field of a large private practice and from the rich repository of well-garnered opportunities at the Woman's Hospital. Enough of theoretic novelty, however, is given to make a few chapters of charming reading. Of this kind are chapters V and VI, treating respectively of CAUSES OF DISEASE, REFLEX AND DIRECT, and PRINCIPLES OF GENERAL TREATMENT, both of which are remarkable examples of perspicuity, good taste and sound judgment. Scarcely less deserving of praise for like qualities are the three chapters that immediately follow, devoted to the PRINCIPLES OF LOCAL TREATMENT, and the relations of OVULATION AND MENSTRUATION.

In chapter V we are gratified to see another vigorous blow aimed at the fast-retreating shadow of that pathological hybrid, *chronic inflammation*. Dr. Emmet evidently believes that

“chronic inflammation” is a chronic imposture, and in pursuance of his conviction, and following the lead of Peaslee, who first bared the falsehood to the public eye, says: “Inflammation can exist only in acute form, although its products may remain for an indefinite period. Therefore, the term chronic inflammation is a misnomer, and only serves to give erroneous impressions of the pathology and treatment of uterine diseases.”

The leading object in chapter VI, as stated by the author, is to impress the necessity of attention to details, in order to insure success in the treatment of diseases in women. Some methods of dealing with contumacious patients are also given, and some valuable suggestions concerning the moral management of bed-ridden patients, which, for a systematic treatise, is somewhat exceptional but very appropriate.

The surgical parts of the work, in which we fancy the author especially prides himself, will hardly fail to disappoint the expectations of some, in this, that they do not furnish the desired and looked-for solution of some vexatious problems both in theory and practice. Some new operations are proposed, and many new methods of operating with many new instruments detailed, but we cannot avoid saying, without particularizing, that the reader, as he proceeds, will now and then feel that the authoritative voice of further and varied experiences must be heard in their favor before some of these surgical inventions and innovations can gain a general acceptance among operators.

Of some of these operations, however, it is impossible to speak in terms too strong. A few of them are of so important a character, and so cunningly devised, as to insure for their author a lasting reputation of the highest order, while many of the new methods of performing old operations are unquestionable improvements. Whatever judgment the future may have in store for these surgical novelties, we must admit that there is in their author no lack of ingenious contrivance for attaining desired results and no want of bold audacity in reaching them.

The surgical chapters that will, perhaps, excite most interest and invite the severest criticism, are those devoted to uterine flexures and versions, uterine prolapse, inversion, vesico- and recto-vaginal fistulæ, and lacerations of the cervix uteri. Probably that thing above all others for which Dr. Emmet will be chiefly noted in the summary of his additions to gynæcology,

is his admirable analysis of the results of laceration of the cervix, and his operation for the relief of the same. The far-reaching sagacity of the man is nowhere shown more conspicuously than here. The vaginal distensor, known as Sims' Speculum, which has brought hitherto incurable diseases into the domain of possible relief, will hardly do more for suffering woman than will the teachings of Emmet on the subject of these laceration.

A grievous fault, occasionally noted in this most readable book, is a want of perspicuity. The language, in a few cases, descriptive of operations, is so obscure as to render the meaning of the author doubtful—a result easily understood if we remember that this book is the offspring of an unusually busy, overtaxed brain, during hours purloined from sleep, and that this is the first edition. In the main, the style is forcible and free from ambiguity.

Altogether, this book is one of the most remarkable of its kind ever issued from the American press. S. S. T.

COMPARATIVE PATHOLOGY OF MALARIAL AND YELLOW FEVERS. CLINICAL LECTURES ON THE TREATMENT OF YELLOW FEVER. BY JOSEPH JONES, M. D., Prof. of Chemistry and Clinical Medicine in the Medical Department of the University of Louisiana.

The above-mentioned papers have been placed in our hands for review. They are comprised in two parts: *first*, an elaborate report on the history and differential pathology of malarial and yellow fevers, read by the author at the late meeting of the Louisiana State Medical Association; *second*, two clinical lectures on the treatment of yellow fever, delivered at the Charity Hospital, New Orleans. The two together constitute a most valuable and exhaustive dissertation on the subjects treated of. To those who are familiar with the great learning and untiring industry of Dr. Jones, it is only necessary to announce that he has written on any medical subject to convey the assurance that it has been handled in a thoroughly scientific manner. But those who do not know the author need only to read these papers on yellow fever carefully to be struck with the wonderful scientific research which has been brought to bear upon a most intricate and interesting subject, and under circumstances of daily toil and engrossment well calculated to sap the zeal of most men.

Dr. Jones tells us that his papers comprise an abstract of still more elaborate material prepared and intended for insertion in the Second Volume of his *Medical and Surgical Memoirs*, a great work upon which the author has been industriously engaged for many years, and which, it is hoped, will soon make its appearance, especially as it "will relate chiefly to the fevers and diseases of our Southern States," than which, no treatise could be more acceptable to the thousands of physicians throughout the entire South and West.

Space will not permit such a notice as will convey an adequate idea of the value and exhaustiveness of Dr. Jones' report on the "Comparative Pathology of Malarial and Yellow Fevers." Suffice it to say, that it is full of interest from beginning to end, and conveys, in a comparatively small compass, a vast amount of most useful and thoroughly scientific information. It embodies four prominent features: 1st, The history of yellow fever, more especially in Louisiana; 2d, Relations of yellow fever, as it prevails in Louisiana, to climate; 3d, General outline of the symptoms and pathological anatomy of yellow fever; 4th, Comparative historical, etiological, semeiological and pathological features of malarial and yellow fevers.

Notwithstanding the fact that Dr. Jones quotes extensively from the writings of various historians, the precise date and mode of origin of yellow fever in the United States is still left in doubt, owing to the prevalence, in early times, of much more widespread and malignant types of malarial fevers, and to the extremely unsanitary condition of the original settlements in the South—especially in Louisiana—than are met with at present, since the soil has been more extensively drained and cultivated. The fact that yellow fever is a disease of cities—following in the wake of civilization and commerce, whilst the different types of malarial fever are of rural origin, most malignant in virgin swamps, affords a basis of distinction which does not seem to have been clearly recognized by early writers. Hence, the difficulty of settling the still mooted question of the *de novo* origin of yellow fever in this country through any historical account at our command. The fact, now fully proven, that the yellow fever germ will survive the coldest winter, and live over, to spread pestilence during the ensuing year, only seems to throw additional doubt upon this point, which can only be definitely decided by close and thoroughly scientific

observation and *strict enforcement of quarantine*. Unfortunately, the men who have hitherto discussed these questions have generally been *prejudiced*, and although a vast amount of contradictory nonsense has been written, the public has been only confused, and but little benefitted. This is a "*case*" which should be tried by "*a competent and unprejudiced jury*," and, of course, no jury can be *competent* where it has preconceived opinions which are thoroughly biased.

W. C.

ON THE CONNECTION OF THE HEPATIC FUNCTIONS WITH UTERINE HYPEREMIAS, FLUXIONS, CONGESTIONS AND INFLAMMATIONS: BY L. F. WARNER, M. D., Boston, Mass.

This is the title of a paper read before the American Medical Association, and which comes to us as a reprint from the Transactions for 1878.

The paper is one of interest in itself, calling attention to some interesting points on the therapeutics of diseases of the pelvic viscera, and also as an indication of the tendency of the present time to depend less upon local treatment and regard more carefully constitutional conditions associated with local disease.

The writer considers the liver "the great balance-wheel upon whose healthy action depends the normal condition of many of the principal functions of the human economy."

He recommends muriate of ammonia in affections of the liver, and has obtained good results from that drug in the treatment of uterine fibroids, which, he thinks, are often dependent upon hepatic disease.

The statements at the close of the paper are clear, concise and true. We endorse them heartily as correct statements of important and valuable truths, but we really cannot see that they are to be considered as conclusions from the preceding pages of the paper. In fact, the paper seems to us to lack logical connection, although, as said above, we have found interest and valuable truth in it.

E. M. N.

REPORTS TO THE ST. LOUIS MEDICAL SOCIETY ON YELLOW FEVER, &c., &c. By W. HUTSON FORD, A. M., M. D., formerly Professor of Physiology in N. O. School of Medicine, &c., &c. *George O. Rumbold & Co., St. Louis*, 1879. Pp. 320. Cloth, price, \$2.50.

These are very elaborate reports, and make a volume of more than 300 pages, gotten up in handsome style, and are well worthy of a careful study by all who feel interested in the investigations

into the nature and causes of yellow fever. Although quite lengthy, it will well repay the time necessary to follow the author through the dry list of statistics which he has collected and analyzed. He has done a good work, and one which, if followed up in the same spirit of earnest, patient enquiry, will add much to our knowledge of yellow fever. We have heretofore, he thinks, insisted too much on the theory of the exclusive importation of yellow fever into this country, and now he comes forward with his views of the causes and origin of it, and practically says, "*audi alteram partem.*" The book consists of two separate reports; the first one being the report of the committee appointed by the St. Louis Medical Society to inquire into the relations of the epidemic of 1878 to the city of St. Louis; the second consisting of a supplementary report on the meteorological conditions and etiology of sunstroke, malarial fevers, cholera sporadica, and yellow fever, based on an analysis of the meteorological records of St. Louis and ten other cities of the United States. It will be seen from this statement that the scope of this last report is a very extensive one. The chapter on the etiology of yellow fever alone fills up 133 pages, and is illustrated by more than 120 tables of statistics in regard to the temperature, atmospheric humidity, rain-falls, winds, calms, clear and fair days, thunderstorms, humidity of the atmosphere, as collected from the signal service reports for ten cities; and for Charleston, both the meteorological and necrological records for 37 years. Dr. Ford has been engaged more or less, as he tells us, in these studies for 25 years, and in this report has given us the fruits of his matured thoughts and investigations. In the notice we propose to make we shall confine ourselves to this supplementary report and to the subject of yellow fever, passing by all that relates to the causes of the other diseases above enumerated.

And first, we allude to the method he has adopted in his researches. He tells us that after he had examined the meteorological figures of Charleston for a long series of years, to compare with each other, and after a number of very laborious and abortive attempts to determine a single figure, or as he calls it, a pestilential co-efficient for yellow fever, he determined to apply a system which he denominates "*proof by the coincidence of the extremes and concurrent progression of the means,*" in order to ascertain the primary agents in the production and in the prevention of yellow fever. By comparing the extremes of

of temperature, for instance, during these years with the prevalence or non-prevalence of yellow fever, and also the progression of the mean temperature during the same time, he has concluded that the mean temperature is a primary agent in producing yellow fever; not merely a condition, "but a resistless cause, without which yellow fever cannot exist, at whose maxima it must exist, provided moisture and putrefying matters are coincidentally present." Long-continued high temperature is, he thinks, universally accepted as a necessary condition for the prevalence of yellow fever, and Dr. Ford has demonstrated this by his carefully arranged tables, taken from the records of the Signal Service office. He has shown that the year 1878 was the hottest of the five preceding years in the cities where the fever prevailed. In the case of Charleston, the records of temperature are given for 37 years; and by analysis of the maxima and minima, and by the progression of the mean temperature of each summer season during those years, he has shown that epidemic yellow fever prevailed in the hottest summers; sporadic cases occurred in those in which the mean temperature was lower, and in those in which the mean temperature was the lowest there was no fever. Next to the temperature he gives us the statistics of the number of clear and fair days, for 25 successive years, of August, September and October, for Charleston; and shows by his analysis of them, that the maxima of clear days in a season coincided with yellow fever years, and the minima with healthy years. In the same way, from the analysis of the tables of the number of clear and fair days in each of the healthy cities for five years, during the months of July, August, September and October, it is shown that the average number of clear days in 1878 was greater in those cities than in any year since 1874, and greater than the mean of all these five years. He concludes, therefore, that an usual number of clear and fair days is a primary agent in the production of yellow fever. Next in this meteorological analysis, the effect of rain-falls and inundations is considered, in promoting or preventing putrefaction of organic matter. Droughts prevent putrefaction and the extrication of effluvia, and uniform dryness is in general conducive to health, and especially forbids the appearance of yellow fever. On the other hand, constant moisture of the soil, sustained by frequent showers, followed by fair weather, is most conducive to disease, especially yellow fever.

But uniform and excessive falls of rain are conditions of health, provided there is adequate drainage. Next in order follows a consideration of the effects of atmospheric humidity as a cause of yellow fever, as deduced from the statistical tables, and determined by the dew-point. A high dew-point he concludes to be a primary agent of the second class in the production of yellow fever; as by the analysis of his tables of the dew-point it is shown that in the summer of 1878, the atmospheric humidity was greater than in any one of the preceding five years, and greater in those cities in which yellow fever appeared than in the rest of the eleven cities in which it did not appear. He says, "From these records, therefore, the dew-point is a primary agent of the second rank in the production of yellow fever, acting mostly through its influence in exalting the temperature upon the surface of the earth, upon the inception and progress of putrefaction, and upon the temperature of the human body, both before and after it has been affected with yellow fever. It will be seen from the table that yellow fever of the lowest intensity has never existed in Charleston with a dew-point lower than $65^{\circ}.11$, which is within one degree of the mean dew-point for all years. "The effects of atmospheric currents, winds and calms upon the production or prevention of yellow-fever are next considered, and we have quite a dissertation on these topics, explaining the effects of currents of air in cooling the earth's surface, and in dispersing the noxious miasmatic effluvia extricated from putrefying organic matter under the continued influence of high temperature and humidity. "During the day the heated air ascends and cooler air flows in laterally, causing the diurnal ascending currents which are thus set in motion over all surfaces heated by the sun." "But at night currents are established the reverse of those described; the surface of the earth, cooled by radiation, cools the air in contact with it, which sinks along the slopes with a velocity proportioned to their steepness. Downward currents towards all lower levels begin to flow, invisible if not cooled below their dew-point, but charged with fog if their humidity had been unusually high, or the cooling sufficient to precipitate their aqueous vapor." Again: "Putrefaction is most active during the day, being mostly controlled by temperature; the effluvia which it evolves, however, are quickly dissipated by the ascending currents, so as to be scarcely appreciable to the sense of smell or dangerous to health. At night, on the

contrary, although the activity of decomposition is lessened, a progressive accumulation of miasm takes place, *if there be no wind*, in virtue of which a high degree of intensity is quickly attained."

Having premised this much in regard to the effects of currents of air in sweeping away the miasms generated by decomposition, and the injurious effects of calmness in intensifying them, and especially calmness of the nights, he proceeds to compare the proportion of calms in the different cities, and finds from his statistical tables that the Atlantic cities are least subject to calms, the Gulf cities more so, and the valley cities more than three times as much so. The windiness of the nights as a chief factor in preventing yellow fever is next investigated for each of the 92 days of the yellow fever season in Charleston, and for all the recorded years up to 1857. This is done by estimating the differential variation between the mean minimum of the register thermometer at sunrise and the mean dew-point at sunrise. The closer the approximation between the figures, the calmer the night; and the more extensive the variation, the windier the nights. And from the table of the progression of the means, he finds that the healthy seasons were marked by windiness of the nights, and yellow fever seasons by calmness of the nights, and therefore that windiness of the nights is a primary agent in preventing yellow fever. After the analysis of the records of the Charleston tables, we have tables of the monthly velocity of the winds for each of the four summer months for the eleven cities for the past five years, and here again he finds what is expressed in the reverse direction, that the valley cities are the least windy, the Gulf states more so, and the Atlantic cities the windiest of all. This he considers one of the meteorological reasons why these valley cities and two of the Gulf cities, New Orleans and Mobile suffered from yellow fever in 1878, while the Atlantic cities did not. In regard to Galveston, it is noted that the windiness of July was altogether higher than for New Orleans or Mobile, and the same was true of August and September. And in October the wind traveled 228 miles a day, a figure greater than the average of the month, even for Galveston, while nothing approaching to it can be found in any of the months or years under consideration in any city of the Mississippi valley or Gulf coast, except *St. Louis*. The effects of thunder-storms in purifying the atmosphere and causing ozomiety of the air, are next con-

sidered, and it is shown from the tables that in several of the cities in which yellow-fever prevailed in 1878, there were few or no thunder-storms during the prevalence of the epidemic. Notedly, not one occurred in Memphis; in Vicksburg not one occurred from the 24th day of August until the close of the season. In New Orleans there was one in the first week of August and one the last week, and no others for the remainder of the season. In Mobile there was an unusual prevalence of thunder-storms for the first three months of the season, with freedom from the epidemic.

In October the fever became epidemic, and not a single thunder-storm occurred in that month. In Galveston thunder-storms were unusually frequent in July and August. There were more in September and October, but it was shown that the windiness of the entire season was remarkable, and it is concluded that Galveston owes her escape from the fever in 1878, to the constant renewal of the air in the hot months by thunder-storms, in conjunction with a high degree of windiness during the remainder of the season, "and not to the efficiency of a quarantine barrier, as has been widely and dogmatically asserted, even by men who are totally ignorant of the diseases and climatology of our country."

Lastly comes in order, the analysis of the barometrical indications as tabulated from the records for twenty-four years in Charleston. And as the barometrical heights indicate both fairness of the weather and atmospheric humidity, it is proved that the progression of the mean barometric heights is concurrent with that of the nosological means, and that it is greatest in the four epidemic years, less in the five least epidemic years, and the least in the healthy years, confirming the conclusions before arrived at, viz: that fairness of the days and atmospheric humidity are primary agents in the production of yellow fever. In the same way we have tables of the barometrical indications of the eleven cities, and they confirm the conclusion before arrived at in regard to Charleston.

We have now passed in rapid review, and with as much brevity as possible, consistent with any intelligent explanation, the method of investigation into the causes of yellow fever, and the several topics which are the subjects of it. It was necessary to go into these details, in order to show not only the method followed, but also in order that the strength of the argument

founded on it may be properly appreciated. The subject is one of great importance, and opposite opinions as to the local or exotic origin of yellow fever are held and defended with great zeal by their respective advocates. Dr. Ford has shown himself to be indefatigable in his pursuit after truth, and has worked out and followed with singular tenacity of purpose, a line of investigation which we believe will lead to important results. It is too much, however, to expect of any one man that he should be able to settle a question of such magnitude, in the selection of which so many independent factors must be considered, and which is now occupying the time and study of so many eminent men, physicians, sanitarians and others, under the auspices of the National Government.

The argument of these researches is as follows: "We find that certain conditions, such as temperature, the fairness of the days, the prevalence of thunder-storms, etc., are primary agents either in the production or prevention of yellow fever; but these very agencies are also primary agencies in the promotion or prevention of putrefaction; whence consequently the only legitimate conclusion must be, that yellow fever is associated with putrefaction, and that the animal body is injuriously affected by causes which promote putrefaction." Again: "These special records, in their establishment of primary agents in the causation of yellow fever, *revet* the chain of evidence and completely establish the assumption that yellow fever is primarily caused by the effluvia of putrefaction absorbed by the human body under conditions of systemic excitement and functional disturbance due to high or long-continued heat and humidity." Does this assert that the primary origin of yellow fever was due to these effluvia when it first appeared in the world, and that they will always produce yellow fever now and in this country? As yellow fever is caused both by the effluvia of putrefaction *and* by contagion, is it asserted that these favorable meteorological conditions, causing putrefaction of organic animal matter, will always cause yellow fever, even without the element of contagion, and conversely that it is possible to introduce the contagion of yellow fever into a city when the favorable meteorological conditions exist, but when the greatest degree of cleanliness is present at the same time, and not produce an epidemic by its introduction? These questions cannot be satisfactorily answered, we think, by any expe-

rience that we know of. They will not satisfy our minds on the subject. Dr. Ford has not given us any proof that the fever was not imported into Charleston in those various epidemics. On the contrary, we have good reason to believe that it was so imported, as but little was done in those years in the way of quarantine. He says he "has no hesitation in affirming that, were the element of contagion removed from a consideration of the origin of yellow fever, we would find its etiology so simple that the number of cases reported in any given place would vary distinctly with the heat, humidity, calmness of the nights and quantity of putrescible matter present—the problem of yellow fever would have been solved long ago."

In regard to this we remark that, if the element of contagion were removed, the very essence of the disease would be removed. For what is it that gives such terror to the disease, but its contagiousness? We know but little of the essence of a disease—we recognize it clinically by its symptoms, and by its pathological results. Further on, he says: "As it is, the contagiousness of the disease constantly steps in as an independent factor in the generation of new cases, whenever approximately similar meteorological and terrene conditions exist, and by implanting yellow fever prematurely in distant cities and towns, leads to the impression that those particular places would have certainly escaped, had it not been so imparted, and that wherever occurring it is due to the contagious principle, brought from some other place where the disease exists. By the acceptance of this specious doctrine, and of the numerous chimerical hypotheses shaken together to give it a semblance of support, an immense amount of trouble is apparently saved. All the close physical study necessary for a proper understanding of the meteorology and miasmology of the subject, all the difficulties of pathological study, and all the expense and watchfulness of efficient sanitation—a great mass of labor which has nearly overborne those who distrusted the simplicity of the creed proposed—is dispensed with as altogether superfluous."

So far as the above remarks are intended to apply to the believers in the importation theory of yellow fever, we think they are stated too strongly and too passionately; those who accepted that theory did so provisionally, because the opposite theory of its indigenous and endemic origin had not been satis-

factorily proven to be true. And it is by such earnest and faithful labor as Dr. Ford has done that it may yet be established. We believe, indeed, from all that we can now gather, that the evidence of its endemic and indigenous origin in this country, under certain circumstances, amounts to a high degree of probability, but we cannot as yet accept it as proven. Galveston and Natchez both escaped the fever last year, and in both cases the most rigid quarantine was enforced.

In regard to Galveston, one author has asserted above that it was due to the thunder-storms and high winds which purified the air. In the case of Natchez, we know that the tow-boat, John D. Porter, which scattered the disease along the Mississippi and Ohio rivers up as far as Galliopolis, tried to make a landing at that city, but was prevented by adverse winds; the next day she landed at Grand Gulf, and communicated the disease to a citizen of Port Gibson, who happened to be at the landing and who was in the company of a number of the steamer's crew that came ashore. Eleven days after this exposure, the infected man was taken ill with yellow fever in Port Gibson, and from him the fever spread rapidly till the epidemic assumed the widest proportions. We know that the town of Port Gibson was perfectly healthy till the contagion of yellow fever was introduced, there having been almost no cases of any kind of fever. Why did Natchez escape, although we may safely assume that its meteorological conditions were not dissimilar from those of Baton Rouge below, where the fever prevailed, and from those of Port Gibson and Richmond above, which were so terribly scourged with it? Is not this a strong argument to show that the meteorological conditions may be very favorable to the spread of the fever, and yet have no power to generate it? We believe that so far the mathematical demonstration of the coincidence of the extremes and progression of the means is not conclusive as to their potency to generate the disease; but if this line of argument is followed up for a long series of years, it may clear up the difficulties which necessarily attend such researches. The occurrence of some few cases of fever this season in New Orleans and Memphis does, we confess, give a *prima facie* support to the theory of its local origin. We will have to wait for all the facts in the case of each of those cities before we can pronounce a safe verdict. It would be an interesting study to examine the

meteorological records of those cities during the present summer and see how they agree with the theory of the coincidence of the extremes and progression of the means.

In the first part of this report, one author lays down some propositions which he considers as established by the facts and arguments we have been considering, and one of them is this: Yellow fever is not a peculiar or so-called specific type of fever, but simply a malignant type of typhus gravior. We confess to a good deal of surprise at this proposition, and account for it only because it seems more consistent with his view of the origin of the fever. But every one admits that it is contagious, and that it is characterized by peculiar symptoms, which enable us to distinguish it from other fevers, and that one attack secures an immunity from all future attacks. If these are not the marks of a specific fever, we confess we do not know what are. To explain the immunity from several attacks on other grounds than that it is a specific fever, he says: "The fact that a second attack of yellow fever is not common, merely proves that at the time of the attack, the system, by its inherent power of reaction, was able to resist the disease successfully, and may therefore reasonably be expected to do so ever afterwards more perfectly, so much so as even to prevent the development of noteworthy fever; for it is a law under which we live, that successful reaction against disease implies, *ipso facto*, a strengthening and cultivation of the powers of reaction."

Now, we think the fact that a person had an attack of yellow fever when exposed to its infection, implies that his system had no power to resist the morbid influence, and *pro tanto* manifested its weakness. But, it is well known that immunity from second attacks is a feature common to all the diseases which are classed as specific. How different is this in the case of intermittent or bilious fevers, where a successful reaction against their power (recovery) tends only to make the patient more liable to future attacks.

Our notice of the Etiology of Yellow Fever has been so much more extensive than we intended it should be, that we must not trespass any further on the patience of our readers. The chapter on the treatment is quite a lengthy one, in which our author explains his views of fever in general, and then gives his treatment. He advocates the use of *veratrum viride* in the most emphatic manner, and claims the most favorable

results from it. We advise all who are likely to treat yellow fever to read this carefully. Not having had any experience in the use of this remedy in that disease, we have so much confidence in what he says that we should certainly try it, if it shall ever be our misfortune to encounter another epidemic of yellow fever.

R. G. W.

POTT'S DISEASE—ITS PATHOLOGY AND MECHANICAL TREATMENT, WITH REMARKS ON ROTARY LATERAL CURVATURE. BY NEWTON M. SHAFFER, M. D., Surgeon in charge of the New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital. *New York: G. P. Putnam's Sons.* 1879. Pp. 85, 12mo, cloth; price, \$1.00.

Dr. Shaffer's large experience in this special line of study would seem to have well qualified him for the writing of the above work. Knowing this, and being also aware that, in the treatment of Pott's disease he had been an earnest advocate of the antero-posterior support, we were anxious to obtain his views, and especially to learn if he had adopted the plaster jacket treatment so prevalent during the past few years.

In regard to the last query we are not left in doubt: page 48 reads—"the objections to the plaster jacket are: 1st, its great weight and the necessary occlusion of so large an area of skin; 2d, the great danger of excoriations which may develope at any time, and remain hidden for many days or weeks; 3d, the absolute necessity of suspension, each time the curvature is inspected or the patient is cleansed; 4th, its great filth, and lastly, its failure to accomplish, in the great majority of cases,

* * * * the objects for which it is applied. Among those who are able to purchase a steel support, there is certainly no necessity for the adjustment of a plaster jacket, for the simple reason, that all that the plaster apparatus accomplishes, and more besides, can be accomplished by a suitably-adjusted and accurately-fitting antero-posterior support; while, among the poor * * * * a jacket soon becomes a nest for all sorts of vermin. Several dispensary patients have begged me to remove the jacket on this account; and more than one, after repeated trials, has declined to have the plaster splint readjusted, because the projection steadily increased under its use * * * * I regret that I can find so little to commend (in the plaster jacket) and so much to condemn regarding its use. I can safely say, that with less trouble * * * * much more satisfactory

results can be obtained by the intelligent use of the antero-posterior support."

The author does not claim that the jacket should be discarded; he indicates that it is useful, because it is cheap, and because the surgeon applies it himself. "It affords a better support than any other apparatus adjusted by an instrument-maker;" but not as efficient as the antero-posterior support—apparatus—when accurately adjusted by the intelligent surgeon.

Dr. Shaffer still employs the Taylor apparatus, modified in two ways: first, by having the spinal bars or uprights in single pieces, without hinge or joint, (in fact just as we recommended in 1872—see October No. *St. Louis Med. Archives*, p. 492. We are surprised that Taylor, Lee, Shaffer, and others, so long retained the hinge, and especially just at a place where there should be no motion whatever). Second, by substituting a plaster of Paris zone in lieu of the abdominal apron, especially when the trouble is in the lower dorsal or dorso-lumbar regions, encircling the body, and including the apparatus, at the region of and extending a few inches above and below the boss.

We do not know whether or not there is danger that Dr. Shaffer may extend this encircling bandage of gypsum so high and so low as that it will become a veritable "jacket."

Dr. F. H. Hamilton lately remarked to the Medical Society of the County of New York, June 23, "That an apparel that had only a few points of support was liable to give rise to discomfort, sometimes to ulcers, and, ordinarily, they did not give so much support as those which encircled the body completely." This agrees with our own experience, and while, in the past, the spinal apparatus, acting on the principle of antero-posterior support, has given us good results, yet, of late, we have had better with the "jacket"—an appliance encircling the whole body.

When the disease is in the cervicle or upper dorsal region, our author uses Taylor's chin piece, modified and improved by himself. These are the cases where Sayre would use his "jyrmast."

As regards the pathology of this disease, Dr. Shaffer, with others, regards it as a joint affection with all the peculiarities of chronic ostitis, which may be a dry caries, or a humid attended with suppuration.

Our author's division into four stages, we consider unneces-

sary and arbitrary. From its beginning to its close it is a slow, progressive disease, not marked by sharply defined divisions. Billroth is fully quoted, and though Dr. Shaffer does not contribute original pathological observations from post-mortem examinations, still, from other joint diseases with which he is familiar, he draws logical and correct conclusions in regard to this affection.

Dr. Yale remarked, before the New York County Medical Society, January 27, 1879, that, "in the spinal trouble there were no such nocturnal spasms as occurred in connection with hip-joint disease." Per contra: Dr. Shaffer tells us, p. 26, that "irritation of the peripheral nerves supplying the vertebral bodies gives expression to a peculiar, persistent and involuntary muscular spasm; an agonizing and piercing nocturnal cry." This is what we would expect if Pott's disease is an analogue of chronic joint disease.

Dr. Shaffer is a believer in a diathesis (call it strumous), which predisposes to, or renders the subject more susceptible to spinal caries, and we believe he is right. Just now, we have a case of Pott's disease under treatment—a little girl whose younger sister is similarly affected, and a younger brother a cripple. Spinal caries is a possibility without scrofula being present, but is not a probability.

Eight cases are given, at the close of the book, to illustrate the correctness of views and success of treatment earlier advocated. Very little is said about lateral curvature of the spine. Page 17 reads: "That muscular contractions occur in the typical, rotary scoliosis is very apparent, and that these contractions are reflex, or due to some specific cause, is equally evident, when their nature is studied. * * * * The typical, progressive scoliosis does not develop from a simple alteration of the pelvic plane when an unequal length of the lower extremities causes, in locomotion, a primary lateral curvature in the lumbar region as a matter of compensation. In one hundred cases of lateral curvature (typical) I have found only three where the difference in the length of the limbs amounted to three-eighths of an inch or more. (In persons in whom) the actual difference between the length of the lower extremities has been great, from disease or arrest of development (hip-joint disease, infantile paralysis) amounting to from one to three inches, I have found, after examining a large num-

ber, only two where the typical scoliosis existed, and, from the histories presented by these cases, I doubt very much the etiological value of the altered pelvic plane. In these cases a strictly compensatory curvature results, but it is readily removed by artificially supplying the necessary length to the shortened member, or by placing the patient in the prone position."

Our author tells us that on another occasion he will dwell more particularly upon this subject. We hope the occasion may come soon, for the views here suggested are novel, and differ materially from those of some of the best-known writers on the subject. The cause of lateral curvature has been a hard nut to crack, and we still think the kernel is pretty safe.

We could have wished that a table of contents, or, at least an index, had been added to the present work, whereby its value would be enhanced. A few typographical errors exist, which will be corrected in a second edition, or when Dr. Shaffer gives us a systematic treatise on this and kindred topics.

In the meantime we advise all interested in this important subject to carefully peruse the above work. A. J. S.

LESSONS IN GYNÆCOLOGY. BY WILLIAM GOODELL, A.M., M.D., Physician in charge of the Preston Retreat; Professor of Clinical Gynecology in the University of Pennsylvania, etc., etc., with eighty illustrations—pp. 377; *Philadelphia Pa.*; D. G. Brinton, 115 *South Seventh street*, 1879. [For sale by Hugh R. Hildreth Printing Co., 407 N. Fourth street, St. Louis.]

This most admirable contribution to Gynecological literature consists of twenty-nine "Lessons" or lectures, chiefly clinical, with additions of note-book cases wherever the author considers them useful to exemplify or enforce his lessons, which are of such practical and original character as to at once attract the reader to their careful study. Dr. Goodell's style is peculiarly attractive and impressive. A thorough, conscientious student and independent observer, he is entirely free of egoism or hypercriticism. Careful in giving his reasons where he departs from the most accepted theories, he is not jealous that his own views shall be adopted unless upheld by further investigation.

The lessons upon "Vegetations of the Endometrium" and "Fibroid Tumors of the Womb" are notably clear and thorough.

Lesson xxii. considers the operation for extirpation of the ovary as described by Battey. Dr. Goodell terms it "Spay-

ing;" a term, as applied to the procedure and the subjects of it, which does not seem appropriate, and until some better one be suggested we think with Dr. Sims, that the operation may with propriety receive the name of its advocate and introducer.

Vaginal ovariectomy is more fully treated of in Lesson xxv. than in any other systematic work with which we are acquainted, and under certain circumstances, statistics so far are much in its favor.

The last three lessons are of the utmost importance, especially to students, as they consider briefly but pointedly matters concerning which numbers of medical men are either ignorant, careless or sceptical. Lesson xxvii., on the Prevention of Uterine Disease, discusses first, Puerperal Convalescence, a period full of opportunity for good or evil—for prevention of numberless woes, for the cure of many chronic pathological conditions, for the institution of new mischief or the aggravation of preëxistent maladies.

The old-fashioned binder for the preservation of a good figure and the novenal dorsal decubitus, receive merited adverse criticism.

The last though not the least of these valuable lessons lays before his students, from the text of a clinical case, all the horrors, moral and physical, which have their origin in the modern hatred of home duties, which lead so many of our women and men (?) to desire marriage, but object to offspring, the production of which is the true incentive to marriage. Endeavoring to impress upon his hearers and readers the extreme importance of recognizing and opposing all "sexual frauds," Dr. Goodell concludes this volume by adjuring them "as hygienists, if not as moralists; as physicians, if not as patriots; as guardians of the public health, if not as philanthropists, I charge you to frown upon such practices and take a bold stand against them. Else see to it that in the end you are not held to a strict account for the knowledge you have this day gained." G. A. M.

PARESIS OF THE SYMPATHETIC CENTRES, from over-excitation by solar heat, long continued and suddenly withdrawn, etc. So-called Malaria; its Etiology, Pathogenesis, Pathology and Treatment. By CHAS. T. REBER, M. D. *St. Louis: Geo. O. Rumbold & Co., 1879.*

This is a small volume, duo., of 112 pages, which treats, in this short compass, of a very great and important subject. The

object of the author is to advance and support the theory, for it is simply an hypothesis, that the so-called malarial diseases, which he calls *hyper-thermal*, are due not to any specific cause, not to the introduction into the system of any noxious matter or living organism, but simply to the effect of excessive solar heat long continued, by which we have brought about a depression, a loss of tone or paresis (thermal) of the nervous center which presides over the regulation of body temperature.

The book is well and pleasingly written so far as it goes, but is mainly suggestive, and we would be glad to see an elaboration of his ideas by the author, who has evidently devoted some study and attention to the subject, and claims many years of practical experience. The press-work is well done, and is a credit to the publishers.

P. G. R.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. Edited by ALBERT H. BUCK, M. D., American editor of Ziemssen's *Cyclopædia of the Practice of Medicine*, etc., etc. Complete in two volumes. New York; Wm. Wood & Co., 1879; royal octavo; cloth; pp. vol. I, 792; vol. II, 657; illustrated.

The editor tells us very early that "In the preparation of the scheme announcing a translation of Ziemssen's *Handbuch der speciellen und Therapie*, in 1874, it was thought advisable to omit the first volume of the series—that which relates to the subject of public health. This decision was based chiefly upon the fact that the book, though excellent in all other respects, treats the subject almost entirely from a German standpoint, and takes cognizance of a state of things very materially different from that which exists in this country. It was believed, however, that a treatise on public and private hygiene, written with special reference to the different climates, conditions of soil, habitations, mode of life, and laws of the United States, would meet with favor, not only among the subscribers to Ziemssen's *Cyclopædia*, and physicians generally, but also among all educated classes."

It would seem, then, that the present work is somewhat supplementary to Wood's edition of Ziemssen, so ably translated and so favorably received by the profession.

The first volume contains, after an introduction of 60 pages by John S. Billings, M. D., Surg. U. S. A., including Preparatory Remarks, Causes of Disease and Jurisprudence of Hygiene,

Part I:—INDIVIDUAL HYGIENE, with the sub-headings of *Infant Hygiene*—70 pages—by A. Jacobi, Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, New York; *Food and Drink*—64 pages—by James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania; *Drinking Water and Public Water Supplies*—104 pages—by Professor Wm. Ripley Nichols, of the Massachusetts Institute of Technology, Boston; *Physical Exercise*—81 pages—by A. Brayton Ball, M. D., New York; *The Care of the Person*—26 pages—by Arthur Van Harlingen, M. D., Philadelphia, Chief of the Clinic for diseases of the Skin, Hospital of the University of Pennsylvania. *Part II*.—HABITATIONS, with the sub-headings of *Soil and Water*—200 pages—by Wm. H. Ford, A. M., M. D., President of the Board of Health, Philadelphia; *The Atmosphere*—134 pages—by D. F. Lincoln, M. D., Boston; *General Principles of Hospital Construction*—57 pages—by Francis H. Brown, M. D., Boston, which closes the volume.

The second volume includes *Part I*.—OCCUPATION, with the sub-headings: *Hygiene of Occupation*—78 pages—by Roger S. Tracy, M. D., Sanitary Inspector of the Board of Health, New York; *Hygiene of Camps*—95 pages—by Charles Smart, M. B., C. M., Asst. Surg. U. S. A.; *Hygiene of the Naval and Merchant Marine*—23 pages—by Thomas J. Tanner, A. M., M. D., Ph. D., Med. Director U. S. N.; *Hygiene of Coal Mines*—23 pages—by Henry C. Sheafer, one of the editors of the "Miners' Journal," Pottsville, Pa.; *The Hygiene of Metal Mines*—13 pages—by Ros-sitter W. Raymond, Ph. D., editor of the "Engineering and Mining Journal," New York City. *Part II*.—PUBLIC HEALTH, with sub-headings: *Infant Mortality—Vital Statistics*—81 pages—by Thomas B. Curtis, M. D., Boston, Surgeon to Out-patients at the Mass. Genl. Hospital; *Adulteration of Food*—28 pages—by Stephen P. Sharples, S. B., Boston, chemist, Inspector of Milk for the city of Cambridge; *Public Nuisances*—91 pages—by Roger S. Tracy, M. D., Sanitary Inspector of the Board of Health, New York; *Quarantine* (with reference solely to sea-port towns)—24 pages—by S. Oakley Vanderpoel, M. D., LL.D., health officer of the port of New York, etc.; *Inland Quarantine*—14 pages—by S. S. Herrick, M. D., Secretary of the Louisiana State Board of Health; *Small-pox and other Contagious Diseases* (I., Small-pox; II., Scarlet Fever; III., Measles; IV.,

Whooping Cough)—23 pages—by Allan McLane Hamilton, M. D., Sanitary Inspector of the Board of Health, New York, and Bache McE. Emmett, M. D., New York City; *The Hygiene of Syphilis*—7 pages—by F. R. Sturgis, M. D., Clinical Lecturer on Venereal Diseases in the University of the City of New York, Surgeon to Charity Hospital, etc.; *Disinfectants*—24 pages—by Elwyn Waller, Ph. D., chemist to the Metropolitan Board of Health, New York; *Village Sanitary Associations*—23 pages—by Roger S. Tracy, M. D., Sanitary Inspector of the Board of Health, New York; *School Hygiene*—38 pages—by D. F. Lincoln, M. D., Boston. This volume closes with a very complete index of 28 pages.

We have in this work a creditable monument of American enterprise and learning, in one of the most important fields of study that can engage the attention of physician and philanthropist. Being written by original investigators, and men with practical experience in the different departments treated of, we have here presented the best and the latest facts and conclusions in all matters pertaining to personal and public hygiene. Physicians are, by their study and practice, the natural conservators of the health of the people. With a profession well educated in public hygiene and State medicine, most important knowledge would soon be disseminated among the people, and thus the importance of works such as the above to all medical men.

No more signal fact need be adduced in refutation of the assertion that our age is degenerating—going backwards—than what has been done in the last 20 years, and is now being done, in the way of “preventive medicine.” Lives have been saved, suffering prevented, wealth increased; and yet the half has not yet been accomplished. A more universal knowledge and a more thorough application of the facts of “hygiene” will hasten on the good work. There is an existing need for just such volumes as the creditable enterprise of Mr. Wood has given—not only to the subscribers of Ziemssen, but to the profession at large, and to all educated laymen; and no library, public or private, general or professional, should for a day be without them.

From time to time we will give our readers, as subjects arise and opportunities offer, the benefits of a close perusal of this mine of hygienic wealth.

A. J. S.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Stated Meeting, Sept. 18, 1879. Dr. L. Ch. Boisliniere, Vice-President, in the chair.

PUERPERAL PHLEBITIS WITH RESULTING THROMBOSIS AND GANGRENE.

Dr. Papin reported the following case of puerperal phlebitis with resulting thrombosis and gangrene. The patient was 20 years of age. I attended her in a previous confinement, about two years ago. One day last October, being then pregnant about six months, she went shopping, and during the day fatigued herself very much. She carried her child very low. When she got home, she sat down near an open window, drank some soda water and ate some cakes and ice cream. The day following was very rainy, but she nevertheless attempted to go out again, feeling a little colicky pain all the time. I saw her just on her return, and found she had enteritis and peritonitis. I had her freely leeches, and gave her a good deal of quinine, morphine and saline purgatives; she rallied, although slowly, under the treatment. Matters went on pretty well until she was confined, the last day in December, 1878. There was absolutely no trouble whatever in the delivery. The child weighed about nine pounds. I followed the child by the ordinary method, but the after-birth did not come; I waited; the pains became irregular, unendurable. I used frictions and manipulations of all kinds, and finally attempted to reach the placenta through the vagina; I found it in the fundus of the womb and that there was hour-glass contraction. The internal os was contracted and rigid as any I ever felt, such as it is in old maids who marry late in life. I gradually introduced the whole of my hand into the vagina, using great force, and I kept it there until my fingers grew cold; waiting for the time when perfect relaxation would take place. I got my whole hand into the womb.

It was very severe, my hand becoming numb, and the very bone in my arm aching. I gradually detached as much of the placenta as I could, finding portions degenerating and adhering by its whole surface. I washed the womb out thoroughly with a carbolized solution, and by that time found the pulse extremely rapid and weak; this manipulation was done under the influence of chloroform. I remained with her all night, and before morning she had a chill and rigor. The temperature was 103°. I gave a good deal of quinine and morphine, used fomentations to the abdomen, and the second day afterwards, I called Dr. Maughs in consultation. I had several times washed out the womb itself, each time bringing out large portions of decidual membrane and traces of the calcareous placenta. There was still some remaining. She went into regular old-fashioned puerperal fever from septicæmia.

Dr. Barrett: When did the inflammatory symptoms develop?

Dr. Papin: Almost immediately, there never had been any complete cessation of pain since October, there still was a kind of sub-acute areolar tissue inflammation, but acute inflammation set up from the rigor. She repeatedly had chills, and fever afterwards, the temperature often varying from 101° to 104½°. This continued from day to day and week to week; Dr. Maughs, Dr. Boisliniere and myself in attendance. These gentlemen endorsed my treatment pretty much throughout, making many valuable suggestions, such as the use of *veratrum viride*, etc., and soon she was put on a diet of beef tea, egg nogg, wine, etc. About four weeks after her confinement, inflammation of the veins of the leg showed itself—*phlegmasia dolens* of a most severe character. Hypodermic injections of morphia and quinine were freely used to relieve her. We noticed on an examination that the pulsations had ceased in the femoral artery of the left leg. I then insisted upon calling in surgical consultation. Almost simultaneously with the discovery of the fact that the femoral artery of the left leg had ceased to pulsate, we discovered a black spot on the inner portion of the leg, which spread very rapidly, showing that mortification was going on, which gradually extended, embracing the limb to near its middle. Dr. Gregory satisfied us that there was not only obliteration of the vein, but also of the femoral artery. The inflammation still extended, and little by little a line of demarcation was formed between the dead and the well portion of the

leg. About the middle of March, Dr. Gregory amputated the leg with his fingers. The operation should have been performed much earlier, but the friends would not consent to it. The woman eventually got well, and still remains so.

Dr. Gregory then related the surgical history of the case, at greater length, as follows :

I was consulted as to this case the latter part of January. It was clear to me from the first that the femoral artery did not pulsate. It seemed to be obliterated; the foot was cold and discolored, and the discoloration and frigid condition reached the middle of the leg. It was insensitive and rapidly decomposing. The constitutional condition of the woman was very bad; her temperature and pulse rate were very high, with all the concomitants of that kind of pulse and temperature. I waited until the line of demarcation was perfect, waited until it was absolutely certain that there was an end to the progressive encroachment of the mortification; and then, the constitutional condition being perfectly clear, I desired to amputate, but preferred that it should drop off if they were willing. I think two or three weeks passed before the operation was accepted. When it was decided upon, the doctors who were invited to be present were there, and I stated the plan which I proposed for its removal; and although they thought it was of little avail, they agreed that it was about the best way to treat the case; I approached the case without a knife, and detached the dead portions of the limb along the granulating line; I then got under the periosteum and detached the living granulating mass from the bone, with my fingers, until I reached a point sufficiently high up to give me a guarantee of a good flap, then slipped under the bones the loop of a chain saw; I could not hold this mass aside, as you can ordinary flaps, because the parts were so infiltrated by inflammatory new material, incident to the condition. I simply passed the chain saw under the bones and sawed them off; such was the condition of the parts no vessel was opened, because I kept close to the bone, and no blood was lost, and after the detachment of the bones, the parts were allowed simply to progress as they were doing prior to the operation, advancing to a complete cure; the constitutional condition of the woman was better, and it was proper to interfere when we did. But then there was the empoisonment of the system, which occurred prior the operation; the tempe-

perature and pulse, which had been reduced to their natural standard, began to mount up again; in the next twenty-four or 36 hours, erysipelas began, and spread over the entire body, the pulse went up to 130, and so remained for four days. During these days, the patient took from forty to fifty grains of quinine a day, and the usual remedies in such circumstances, but without any apparent effect on the disease. I recollect, one day Dr. Papin said that he believed the woman would die, mentioning a case which he had seen, which seemed to be parallel with it, that had gone the same way. She was then given twenty grains of quinine every two hours, until in twenty-four hours she had taken one hundred and ninety grains, when she became entirely blind, and remained so for several hours, (quinine amaurosis), but the disease was arrested. The symptoms began to improve, but prior to that time the ordinary doses of quinine seemed to make no impression. The erysipelas occurring after the operation was of the erythematous kind. There was no involvement of the connective tissue. No abscess formed in any portion of the body. The stump pursued the usual course, and continued to discharge until two or three weeks ago; I was satisfied there was some necrosis of one or both bones, and concluded to open the sinus and remove the sequestrum; I gave her some chloroform; cut down and removed a sequestrum of ordinary size, from the end of the tibia; I detached the periosteum completely from the bone that I sawed, and in all probability, detached it considerably above that point, so that a portion of the bone, from which the periosteum was detached, above the site of the incision, died; I extracted this with considerable difficulty, Sunday about 11 o'clock, and about 9 o'clock that night, she had a chill, and before day I was called to see her, and already the erysipelas had begun, for the second time. Now, mark you, this operation had been done at 11 o'clock; during the the night she had severe rigor, and before day I was called, and already the erysipelatous blush had set in and spread up to the knee, and it continued to spread until the whole trunk was affected as in the first case, except that it was more rapid and much more evanescent. The temperature went up to more than 100°, the pulse beat with alarming frequency, and the whole constitutional condition that existed, prior to the amputation, was, for two or three days, reënacted. All this came on before there was any time for new

absorption. But during all this time there was a suppurating sore, and pus was present and in contact with the new surface that I made in going for the sequestrum, and it is possible there was inoculation at once. These are points upon which we can never have knowledge with certainty. At any rate, the point which struck me as interesting, was the rapidity of the recurrence of the condition, after this seemingly mild surgical procedure. It was suggested that she was pregnant, and I began to be alarmed, lest she might be in that peculiar state which is ascribed to it. She is now well, and I believe the stump is closed, or about closed, and she is around in her carriage, about the streets. The stump is a good one, and the bones are well covered. I gave her a better chance for life in dealing with these parts as I did, than if I had made the flaps in the ordinary way of amputation. Then again, I followed the surgical maxim, "To take away nothing that could be saved." Nature determined what parts were to be lost, and I followed the lines of nature corresponding to the condemned parts, and simply detached the periosteum to a part which gave me a good cushion for the bones. I felt for the femoral artery the other day, but could not get it; I examined carefully for it, and there was no reestablishment of it at the line. All the circulation of the limb is carried on by a collateral circulation which has been established under the exigencies of the circumstances.

Dr. Gregory: Dr. — suggests that the method adopted in the removal of the limb, would be just as serviceable in the case of a boy or a man. I adopted that method of treatment a long time ago. Some years since, a man, having a fracture of a limb and obliteration of the artery, was brought to the hospital; I waited for a line of demarcation to appear, with the limb already in a slough, when it did appear, I removed the condemned portion with my fingers. I recollect some time ago, Dr. Papin requested me to see a woman who had her feet frost-bitten during the winter; I took hold of the limb, gave it a pretty good twist, and it came off, leaving a beautifully granulating surface, which healed up in a short time without further trouble. Some years ago, a drunken woman entered the hospital, with frost-bitten feet, and I recommended that they be cut off, which she would not consent to; six months afterwards, the woman was placed on the table, and I simply took hold of them, *cracked* the bones off and left the granulating surface on the

bones themselves; there never was a knife applied to them, and the stump was excellent. It is a very common idea, that granulating new material does not make a good stump, but this is incorrect.

Dr. Maughs: It seems to me that a number of things of importance have not been touched upon in this at all. Dr. Papin delivered the woman with a great deal of difficulty with the after-birth, and a great deal of post partem hæmorrhage. He found it impossible to remove all of the placenta. He removed all that he could, very properly. The woman was greatly devitalized from post partem hæmorrhage. I found her with puerperal septicæmia and with an offensive discharge from the uterus. Her history pointed to the fact that she was being poisoned by the putrid material left in the uterus, from a decomposing placenta. I suggested to Dr. Papin the necessity of washing the uterus. This we did, in the same way as we would wash out a bottle, with warm water, and antiseptics. We washed out a large amount of debris, decomposing, rotten portions of the placenta that were being detached. We also washed it out three or four times with a weak solution of iodine. The woman was exceedingly septicæmic, with a pulse 130° to 150°. We gave digitalis, good diet, etc., Dr. Papin seeing her three or four times a day, until all offensiveness had ceased, and yet the woman was exceedingly prostrated, and her heart, in consequence, had almost ceased to pulsate. The circulation, I think, was more disturbed than in any case I had ever before seen, in a person who eventually recovered. If the pulse were eighty, and she would speak it would run to 140 or 160. Indeed, we feared paralysis of the heart. These conditions were most favorable for embolism and for the formation of heart clot. The patient, however, recovered from this excessive prostration, and seemed to be doing well, and she continued doing well until Drs. Papin and Boisliniere had ceased attendance, and Dr. Papin told her that he was, perhaps, not going to visit her again. The night that Dr. Papin concluded that the woman was doing so well, he was sent for in great haste and found her complaining of a violent pain in the limb. Now, while I was in attendance she complained of the same pain in the limb which which is very common in puerperal septicæmia; the plugging up of the artery was caused by the hyperinotic condition of

the blood, simple embolism, some clot plugging up some portion of the iliac artery.

Dr. Moses : You think she had no phlegmasia dolens?

Dr. Maughs : No.

Dr. Ford : What was the character of the affection?

Dr. Maughs : Absorption of putrescent matter from the decomposing debris.

Dr. Prewitt : I think Dr. Gregory will agree with me, that in embolism of the artery, there is not so much swelling of the limb as in thrombosis.

Dr. Papin : There was a period of about three or four weeks when Dr. Maughs did not see the patient, when the leg swelled up very largely, and there was undoubtedly phlebitis. The leg was then one-fourth to one-third larger than the other.

Dr. Gregory : What interested me was the arterial supply. There was certainly not sufficient destruction of the venous return to imperil the limb. When I first saw her I was very anxious about the femoral artery.

Dr. Coles : In a case of that kind in which the system and the blood is in that condition, embolism of the artery would have been followed very likely by thrombosis of the vein.

Dr. Prewitt : But the trouble is, that if the embolism of the artery was the primary condition, embolism of the vein would not have caused such swelling.

Dr. Coles : If the original embolism was down near the popliteal artery, the profunda would still be intact and supply the lower part of the limb with blood.

Dr. Ford : I have seen a case exactly similar to that, in which there was plugging at a lower site, and the thrombosis extended backwards.

Dr. Gregory : I would like to refer to the case of a policeman (White), who was shot in the thigh by the fellow Rande. I was called to see that man after he was shot. It was supposed he had a wound of the femoral artery. There was no pulsation in the man's foot, and the hæmorrhage was very great. I tied the femoral artery at the usual site. In the course of the next twenty-four hours I was called out of the city, during which time Dr. Hodgen saw the case and performed amputation of the limb. After the amputation of the limb, it appears the artery was not wounded, but that the femoral vein was cut. I recollect I took the precaution to hold his leg up; every time

the finger was taken off the main artery the hæmorrhage was very great, notwithstanding it was not cut, hence we tied the femoral artery. There must have been some large artery wounded close to the main artery to furnish this blood, but the interesting point was, that if the finger was removed the danger was the fact that whilst there was an artery to supply the limb with the usual amount of blood, there was no possibility of its return, the main vein of the limb being cut, and it became a question in my mind whether the ligation of that artery was not the best means of saving the limb. The main venous return being cut off, whether that was not the best means of establishing an equilibrium in the circulation in the limb. The subject of venous return was being considered, and it occurred to me that this case furnished an example.

Dr. Papin: Supposing in this case that there was an occlusion of the vein, at least a great impairment of the circulation, would it not have been a provision of Nature to plug up this artery?

THE AMERICAN GYNÆCOLOGICAL SOCIETY.*

The Fourth Annual Meeting of the American Gynæcological Society convened in Hopkins Hall in the city of Baltimore, at 9:30 A. M., September 17th, 1879.

The President, Dr. T. Galliard Thomas, of New York, called the meeting to order, and announced the order of business. The Secretary called the roll, and a majority of the members of the society responded to their names.

Prof. Wm. T. Howard, of Baltimore, delivered the following address of welcome:

Fellows of the American Gynæcological Society:

"The honor has devolved upon me of tendering to you, and our invited guests, the greetings and hospitalities of the occasion.

"Let me say, at once, that we welcome you as friends—friends by the ties of personal respect and regard; that we welcome you as brothers—brothers and collaborators in the great cause of science and humanity.

"If our annual assembling had no other incident or end,

*From advanced sheets of the *Maryland Medical Journal* for October, 1879.

than the pleasure of meeting each other; if it accomplished no other good than recurrent opportunities afforded for social intercourse and the interchange of personal courtesies, the formation and cementing of cherished friendship, the binding together of hearts kindred in feeling, because kindred in the aims and aspirations of the same high calling; it were well, amid the toils and struggles of crowded life to gain pause for these bright intervals, and indulge the culture and enjoyment of those gentler and nobler amenities that lend to life its genial light and grace, its consolation and charms.

“But we have assembled for graver, if not loftier purposes. In the progress of medical science and art, as in the advancement of so many other departments of human activity, the wide range of learning and discovery still enlarging its boundaries and ramifications, often precludes the possibility, with our limited faculties and existence, of that combined accuracy and extent of knowledge and experience in the treatment of the multiform phases of disease, so requisite to assured skill and success; and, hence, *specialties* have sprung up as at once the outgrowth of necessity and the flower of hope for the profession.

“As to each of these,—while remembering the never-failing importance of general practice, we may say, in the lines of Goethe, prefixed to the published volumes of our Transactions:

As a star,
Which doth not haste,
But doth not rest,
Let each pursue
His special quest.

“Those three volumes of the published ‘*Transactions of the Gynecological Society*,’ exhibit some of the valuable first-fruits of an organization, which, though young in years, has already been greatly useful in its results and influences. We have there garnered the rich treasures of wise observation and enlightened discussion in this new and difficult field of inquiry, conducted by some of the acutest and soundest thinkers of the day, upon a great variety of interesting and important topics.

“You have come together again, gentlemen, to bring your contributions to the common fund of facts from which the laws of disease and the instruments of its alleviation are to be derived. You have come from your distant homes in different

sections of our great country, not to struggle in ambitious contests for Olympian honors, but, in generous rivalry, to bear each his sheaf of golden grain to the general storehouse of knowledge; and as 'peace hath her victories, no less renowned than war,' so these sheaves are your wreaths of fame, as noble as the laurel or the palm.

"Among the distinguished members present, I am sure I but share the general feeling of pleasure in observing one (Dr. J. Marion Sims,) lately returned to us from a prolonged absence abroad, whose early, continuous, and invaluable contributions to Gynecology, have received equal recognition in both hemispheres.

"Gentlemen, one and all, in the name of the profession of our city, I bid you an earnest and cordial welcome,—I give you the right hand of fellowship and brotherhood,—I ask you to feel at home in our hearts and homes."

The President requested all honorary members and ex-Presidents of the Society present to take seats upon the stage. Prof. D. C. Gilman, President of the Johns Hopkins University was invited to a seat upon the stage, upon assuming which he welcomed the Society to Baltimore, and especially to the Hopkins Hall, and fully explained the character and work of the Johns Hopkins University and Hospital.

The President called for the reading of original papers, and announced the paper of Dr. J. P. White, of Buffalo, to be the first on the programme.

Dr. White's paper was upon INTRA-UTERINE MEDICATION, and was in warm advocacy of this plan of treating intra-uterine inflammations. The paper was based upon the study of cases and long experience in the employment of intra-uterine medication. The doctor presented several instruments he had invented for dilating the cervix uteri, and for making applications to the uterine mucous membrane, also a sponge tent which he had adopted in his practice with the best results.

Dr. White advocated the plan of incising the mucous membrane of the cervix in some four or five different points before introducing a sponge tent. He thought this method of great assistance in hastening dilatation.

The next paper read was by Dr. Robt. Battey, of Rome, Ga., on INTRA-UTERINE MEDICATION BY IODIZED PHENOL. Unfavorably impressed with the results obtained from intra-uterine medi-

cation by nitrate of silver and nitric acid, Dr. Battey instituted a series of experiments, hoping to find an eligible substitute which would be efficient as a remedy, and, at the same time, leave the uterus in a normal state. Iodine, in the form of the tincture, and carbolic acid alone and in combination had been tried, and found to be inefficient.

The use of carbolic acid, as a solvent for iodine, suggested itself, and was found to be unexpectedly good. Solutions of 1, 2 and 3, and eventually of 4 parts iodine to 8 parts, by weight, of liquified carbolic acid were prepared and placed upon trial. The strongest solution was found too energetic, too caustic in its action, but was useful in disintegrating uterine cancer, as a supplement to the curette. For ordinary purposes the 2 parts to 8 solution had proven to be an eligible formula and to this solution Dr. Battey gave the name Iodized Phenol. It is a deeply colored, almost black, syrup liquid, exhaling a very pungent odor of iodine, which does not solidify at ordinary temperature, is a permanent preparation, and under glass stopper may be kept indefinitely. Its iodine strength is nearly double that of Churchill's concentrated tincture. Dr. Battey found most satisfactory results with iodized phenol, and having communicated the formula to a number of professional friends who put it to successful test, he brought it to the notice of the profession in the February, 1877, number of the *American Practitioner*. A yet more large experience and favorable reports from many physicians warrants the opinion that it is worthy of wider dissemination.

Cotton wool readily imbibes the solution, and as readily imparts it to the surfaces. Dr. Battey prefers that form of cotton known to spinners as "the lap." Its absorbent power is very excellent. The energy of the application is regulated by the quantity used, and the period of contact with the tissues. Iodized phenol gives but little pain as compared with nitrate of silver. The rapid absorption is evidenced by the taste in the mouth and throat which is remarked in from five to ten minutes. When the saturated cotton is left in the uterus for twelve to twenty-four hours, it is withdrawn perfectly blanched, the iodine having been entirely absorbed, and by virtue of the disinfectant powers of the remedy it is quite free from any offensive odor. The uterus becomes thoroughly saturated with the iodine which passes into the circulation, and acts in an altera-

tive way. The applications are renewed ordinarily three or four times in the inter-menstrual period, the interval varying with the sensitiveness of the uterus, as well as with the energy of treatment. In the dilatation and softening of the uterus which the medicated cotton tent induces flexions of the organ gradually yield, and are not unfrequently, entirely overcome without the use of mechanical means; sub-involution disappears, menorrhagia dependent upon villousities of the endometrium is effectually removed without the use of the curette, and the puffy, swollen cervix, with broad slip, is often so completely transformed as to be restored to a truly vaginal type.

The cervical glands are not destroyed by the treatment, the cervical endometrium becomes healthy and not cicatricial in texture, and in no instance has stenosis followed. Dr. Battey does not claim that rapid cures in chronic cases of long standing are to be effected by this method of treatment. This paper closes with a full report of cases illustrating the therapeutic value of iodized phenol.

In the discussion following the reading of Dr. White's and Dr. Battey's papers, the following members of the society took part: Drs. J. Marion Sims, Isaac Taylor, W. T. Howard, Fordyce Barker, John Byrne, P. F. Mundé, Wm. Goodell, N. Bozeman, H. P. C. Wilson, Thad. J. Reamy and the president, Dr. Thomas. This discussion elicited decided difference of opinion in regard to Intra-uterine medication. It is worthy of comment that men of large experience and careful observation should differ so radically in the manner of treating a diseased organ such as the uterus. The discussion was of a most interesting character, and was conducted in such a manner as to throw additional information upon this important subject.

The next paper presented to the society was by Dr. J. R. Chadwick of Boston, on CASES OF AUTOGENETIC SEPTICÆMIA IN GYNÆCOLOGICAL PRACTICE. This paper began with an inquiry into the nature of Septicæmia, and its character and symptoms were illustrated by a report of five cases.

CASE 1.—Was that of a woman who aborted in her second pregnancy between her fourth and fifth months. The placenta had been retained and the absorption of septic matter resulted after the removal of as much of the adherent placenta as could be detached; liquor ferri perchloridi one part to four of water was injected to prevent hæmorrhage. Incipient septicæmia, due

to absorption of blood clots formed of iron and of the placental fragments, was diagnosed.

The cavity of the uterus was washed out night and morning for a week, with a solution of permanganate of potash. The discharge ceased and patient recovered.

CASE 2.—Was that of a multipara 28 years of age from whom a three-months dead fœtus had been removed with a decomposing placenta, slow septicæmia developed from absorption. Injections of solution of permanganate of potash were used as in case 1, leading to perfect recovery.

In CASE 3.—Labor occurred at term with perineal rupture, absorption of septic matter took place and septicæmia was developed. Intra-uterine injections of same solution as used in cases one and two were made by this method: The solution was carefully injected into the vagina, with the patient lying upon her side, until the fluid began to ooze from the vulva, the patient was then gradually turned upon her face while the injection into the vagina was continued. By this plan Dr. Chadwick believes that the vagina was distended to its utmost, as in the knee and elbow position, while the uterus gravitated into the abdominal cavity and allowed the fluid to flow through the patulous cervical canal into the cavity of the organ with the force of pneumatic pressure, any air that might thus be forced into the vagina by the syringe would remain there, and thus the possible danger of its passage into the uterine sinuses be avoided. The method was employed most successfully in this case.

CASE 4.—Was that of a normal labor followed by septicæmia with erysipelas as one manifestation and malaria as a complication.

In CASE 6.—Septicæmia followed the attempt at enucleation of a submucous fibroid tumor of the uterus.

All of these cases presented certain characteristic features in common. In all the uterine cavity presented extensive denuded or wounded surfaces in direct contact with which were tissues presumably undergoing decomposition. In each case a severe chill supervened upon a state of apparent perfect health, not attended or followed by pain or vomiting, or other signs of inflammation. An abnormal insensibility to pain with a very high fever were constant symptoms.

In the treatment of these cases the same general course was

observed. Injections of a sol. of permanganate of potash were used to remove the decomposing masses and to cleanse, by disinfection, the uterine canal. A few crystals of the permanganate were dropped into a cup of hot water until the solution was of a deep dark color, no exact estimate of its strength being required. Dr. C. thinks the permanganate of potash equally efficient with any known disinfectant and possesses one great advantage over any other, in that it gives evidence by a change in the color in the solution from a deep dark to a dirty yellow, so long as there is putrid matter to be rendered inert. It has a marked astringent effect upon the vaginal walls, which, besides rendering the putrescent matter inoffensive, also might so astringe the denuded surfaces as to deprive them for a time of absorbent properties. Dr. Chadwick thinks carbolic acid in solution objectionable, from the fact that it is liable to be absorbed from the uterine cavity and produce virulent poison and death.

Dr. E. W. Jenks, of Chicago, contributed a paper entitled *THE TREATMENT OF PUERPERAL SEPTICÆMIA BY INTRA-UTERINE INJECTIONS*, which began with a review of the history of intra-uterine injections, and indicated that the use of injections, even in the treatment of puerperal diseases as well as non-puerperal affections, had been subject to many changes, at one time praised beyond measure, at another entirely abandoned. The paper sums up the literature of the subject from Hippocrates down to the present day, and presents the views of different eminent writers in Europe and America. Considerable difference of opinion exists in regard to the method of treatment and the injections used. After carefully reviewing the matter, Dr. Jenks arrives at the opinion that the intra-uterine drainage, by immovable tubes, seems to possess not a single advantage but what can be claimed for intra-uterine injections, and is decidedly less free from objections. Dr. Jenks recognizes the danger of using injections within the cavity of the undilated non-puerperal uterus. He very reluctantly began the use of injections into the uterus for septicæmia, but satisfactory results in the limited number of cases under his observation have convinced him that they should be used more than is customary in the treatment of puerperal disease. Dr. Jenks believes that by exercising care and prudence there need be no accidents in consequence of washing out the

puerperal uterus with antiseptic fluid. He has made intra-uterine injections in sixteen cases with puerperal disorders occurring during the past eighteen months. The remedies used were solutions of carbolic acid, and permanganate of potash, the former having been used alone more frequently; sometimes they were used alternately, and in a few cases combined. In no case was salicylic acid given by means of injection, though it was prescribed as a constitutional remedy with quinia and other medicines in several instances. Dr. Jenks gives the histories of three cases differing widely in symptoms, as showing most marked results. These cases illustrate the value of intra-uterine injections where the morbid phenomena were decidedly different, and yet the primal cause of each was essentially the same. In none of these cases were injections used prior to the third day succeeding labor. The length of time they were employed varied from three to sixteen days, depending upon uterine discharge and temperature. The best instrument for washing out the uterus is the so-called "Fountain Syringe."

Dr. Jenks adopts the following conclusions:

1. In its wide-spreading relations to other causes of puerperal diseases and of death, septicæmia stands pre-eminent; for, although puerperal diseases are designated by different names, many lesions of the circulatory, respiratory and nervous systems are the direct or indirect result of poisoning; therefore, it is obviously the plain duty of every obstetrician to prevent the absorption of decomposing materials from the uterus.

2. The objections which have been made to intra-uterine injections in the treatment of non-puerperal uterine diseases are not applicable to their use for the prophylaxis or treatment of puerperal septicæmia.

3. The number of deaths attributed to intra-uterine injections have, in the majority of instances, occurred when they were used for other purposes than washing out the uterus with antiseptic fluids.

4. When death has taken place, on account of washing out the uterine cavity after child-birth with a simple antiseptic wash, the fatal result has not been in consequence of the injection itself, but from the improper manner of giving it.

5. By the observance of proper precautions on the part of obstetricians, this mode of treatment is rendered harmless. To secure entire immunity from danger, certain requisites are

important. (a) The mouth and neck of the uterus should be well dilated. (b) Air must not be admitted with the injection. (c) Fluid to be injected slowly and without much force. (d) The fluid must not be of lower temperature than normal body temperature. (e) Powerful astringents under no circumstances to be injected within the body of the uterus.

6. The use of these injections ought never to be intrusted to a nurse or inexperienced assistant, but the accoucheur should give them himself.

7. Intra-uterine injections should be used invariably succeeding child-birth, if there exist any of the following conditions: (a) If there is a premature cessation of the lochia with any constitutional disturbance. (b) If there exist a purulent or fetid uterine discharge. (c) Whenever there is any abnormality of the lochia or offensive uterine discharge attended by elevation of temperature or increased frequency of pulse. (d) When there are good reasons for believing that the uterus contains fragments of placenta, or is imperfectly contracted and contains clots of animal substance.

8. Intra-uterine injections should be used more generally in the prophylaxis and treatment of puerperal diseases than has heretofore been customary, for the following reasons: (a) If properly used, they are devoid of danger and capable of great good. (b) There are no other remedial agents which act so speedily in lowering the temperature of puerperal septicæmia. (c) They are peculiarly serviceable in causing the expulsion of clots or fragments of the placenta, and aid in facilitating subinvolution. (d) They have averted a number of deaths from septic poison.

Dr. A. D. Sinclair reported a case of PUERPERAL SEPTICÆMIA, which illustrated many points of interest, and was listened to with much attention.

The discussion on these papers was conducted by Drs. Fordyce Barker, Skene, Kimball, Goodell, Erich, Chadwick, Thomas, Engelmann and others.

Dr. T. Galliard Thomas, of New York, president of the association, delivered the

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The burthen of which was the aid to be derived from a proper combination of medical and surgical practice in the treatment

of diseases peculiar to woman, to relieve her as far as possible from the mandate, "In sorrow shalt thou bring forth children." From the discourse the idea was derived that among medical practitioners there is a wide difference of opinion as to how surgery should be an aid to the purely medical practitioner. "For centuries," he said, "all the drugs in the pharmacopœia were exhausted in vain attempts to cure the ovarian dropsy. All those suffering from that affection died; surgery offered the means of cure. Within two years a gynæcological surgeon was made the object of severe criticism because, after failure to give relief to a woman in anguish from chronic cystitis, he effected the result by creating a vesico-vaginal fistula. Yet, let any conscientious physician watch day after day, and night after night, the agony of one of these women, and let him see the immediate relief, the blissful surcease from sorrow, given by that simple surgical procedure, and he will ask himself what could be the origin of such illogical opposition. The nineteenth century has no stomach for compromise with those who willfully obstruct her onward march in any field of science or art. The truly conservative are now willing to listen to new proposals, to weigh new ideas, and to return thanks for their suggestion, even if they prove impracticable. He who does otherwise, does not seriously damage that which he depreciates without trial, and he succeeds only in attaching the stamp of Dogberry to himself.

"As every step in our calling, which in diagnosis or pathology subordinates theory to demonstration, constitutes a steady advance of medicine toward the position of an exact science, so does every one who puts a portion of its domain under the control of 'handwork-surgery' advance treatment from theory towards certainty. Shall we stand idle, when every other department of medicine is making rapid advances by the recognition of this important truth? In the special departments, evidence of such advance is too patent to require mention. Look into general medicine and read there the signs of the times. Pleuritic and pericardial effusions are removed by tapping; poisons are taken from the stomach, urine from the bladder, air from the intestines, and serum from the brain, by aspiration; cavities in the lungs are injected; abscesses of the liver opened; the pelvis of the kidney cut into for stone; the gall-bladder invaded; nerves affected by neuralgia stretched

and severed, all for the purpose of supplementing, by surgical resources, the short-comings of pure medicine. Recognizing and fully appreciating that the gynæcological surgeons of our time are steadily advancing upon the road of progress; remembering that the measure of the violence of the opposition in the past has been the degree of merit of the proposed improvement, and assured by the fact that those procedures which have been most abused, now stand upon the safest foundations, let us strive without ceasing to bring more and more completely the pathology of our department under the dominion of our senses, the control of our hands."

In the afternoon the members of the association, by invitation, visited the Johns Hopkins Hospital, accompanied by Francis T. King, president of the board of directors, and a large number of the medical fraternity of Baltimore. Mr. King conducted the gentlemen over the grounds and buildings, explaining, in a perspicuous manner, the buildings in course of erection, the present arrangements for putting the hospital in working order, and the plans for the future of the institution. Dr. John S. Billings explained the improved system adopted for heating and ventilating the various wards and buildings of the hospital; the advantages of which caused much comment by the distinguished practitioners present.

Dr. Goodell read a paper entitled, CLINICAL NOTES ON THE HYPERTROPHIC ELONGATION OF THE CERVIX UTERI, in which he gave his views with regard to the etiology and pathology of two forms of prolapsus of the womb, viz: the elongation of the supra-vaginal portion of the cervix and that of its infra-vaginal portion. The former he regards as due to the traction of a prolapsing bladder and vagina upon a womb made ductile, either by sub-involution, or by chronic congestion. The weight of these organs lengthens out and thins out that portion of the womb, the supra-vaginal portion of the cervix, which lies between its vesico-vaginal attachment below and its suspensory ligaments above. This form of elongation is acquired and not congenital, being usually found in child-bearing women, whose perineum and cervix have been torn; but he has seen it once in sterile married women, and twice in virgins who had passed the climacteric. It occurs, also, more frequently in hard-working women, and especially those—such as cooks and laundresses—

who stand much on their feet and lift heavy weights at arm's length.

In view of the unsatisfactory treatment of this very frequent form of prolapse, the author gives the history of such cases only as he was able to keep under subsequent observation. Their number amounts to twelve. Each one had the vaginal portion of the cervix cut off, either by the cold or by the hot wire, and in each one the vulvo-vaginal outlet was narrowed by the operation of colpo-perineorrhaphy. The wire was used, and not a sharply-cutting instrument, because, in the author's opinion, some suppurative action is needed to bring on retrogressive metamorphosis in the redundant structures. The results are as follows:

Three women, since the operation, have been under observation for from five to six years, and have stayed cured.

Four women have thus far kept well for from two and a-half to four years respectively.

Three women have not, up to the present time, exhibited the slightest symptoms of relapse, for six months, for one year and for one year and a-half, respectively.

One woman, after staying well for four years, became pregnant. In labor her perineum was again torn, and the bladder and vagina are beginning to prolapse. One woman was cured of the prolapse of the womb, but not of her cystocele or her rectocele.

In the amputation of the cervix, the author prefers the cold wire to the hot one, because the danger from secondary hæmorrhage is much less, and because the surrounding mucosa can be slid over and stitched to the stump, to which it will unite by granulations, and thus lessen the area of cicatricial contraction.

With regard, however, to the alleged cicatricial contraction of the os, resulting from the use of the hot or the cold wire, he deems its liability very much overrated. In not one of his cases was it found to exist to a pathological extent. One of them, indeed, became pregnant and gave birth to a living child, while none of the others complained of dysmenorrhœa, or needed any special local treatment.

In but one of the cases was a special operation needed for the cystocele. With this exception, the prolapsed bladder was invariably pulled up by the permanent shrinkage of the womb, and pushed up by the pressure of the reconstructed perineum

and posterior vaginal wall. This operation of colpo-perineorrhaphy also obliterated the rectocele, for by it the redundant vaginal tissue of the rectal pouch was denuded, and used up in forming the back wall of the new perineum.

Elongation of the infra-vaginal portion of the cervix, the author considers either a congenital affection or an exaggeration of a congenital affection. Very rarely has he met with it in women who have borne children, for in them the the cervix usually increases in every direction by circular hypertrophy. True longitudinal hypertrophy he deems essentially an affection of virgins or of sterile women. Of this variety he has seen seven cases in which the cervix either appeared at the vulva or protruded from it. Under the form of conical cervix, however, it is frequently met with, but the elongation is then limited.

With regard to the indications for the treatment of this elongation, there can be no question. As no suppurative action is needed, the redundant portion must be cut off by the knife or the scissors. The surrounding mucosa is then to be sewed to the mucosa of the os externum uteri by radiating stitches, which will thus prevent cicatricial contraction of the os. These stitches will also firmly compress any open-mouthed vessel, and the union of the two mucous membranes will very much shorten the process of healing.

Dr. Joseph Taber Johnson, of Washington, D. C., read a paper on THE MISMANAGEMENT OF LABOR THE CAUSE OF MUCH OF THE GYNÆCOLOGICAL PRACTICE OF THE PRESENT DAY. The doctor began by extolling the brilliant achievements and the rapid growth of Gynæcology into a recognized specialty. Painful and disgusting accidents, the results of which formerly doomed unfortunate sufferers to lingering lives worse than death itself, are now completely cured, and conditions, which years ago were hardly treated at all, are now successfully operated on. So common have the diseases of women become that it has grown to be a saying now-a-days that it is as difficult to find a perfectly healthy woman as it was for Diogenes, in his day, aided by his lantern, to find a perfectly honest man.

The object of this paper is to draw attention to the fact that gynæcology derives much of its prominence and importance from the mismanagement of obstetrical cases, and faulty treatment during the puerperal month.

Every obstetrician sees cases in consultation which have been so mismanaged from the start as to render him powerless to prevent subsequent damage to maternal structures, or perhaps to save life. There is a growing tendency among general practitioners in the direction of assuming the responsibility of severe obstetrical operations and treatment without skilled counsel, which is not apparent in the field of gynæcology. The latter branch, as a specialty, ranks more with ophthalmology, laryngoscopy, dermatology, and microscopy; and their improvements and instrumental armamentaria, having outgrown the skill and knowledge of the family physician and surgeon, there is not so much unwise and unskilled tampering with these branches of our science as with obstetrics. Severe cases in these and other departments are either sent at once to the experienced specialist, or their aid in diagnosis and treatment sought. Unfortunately for the patient, this is not so much the case in the practice of midwifery; and gynæcology waxes great in the land from the necessity which exists for curing cases owing their origin to mismanagement during abortion, confinement, or the puerperal month.

The faulty treatment of abortion was referred to at considerable length. The practice of leaving the placenta and membranes in the uterus after the discharge of the ovum was condemned, and many cases cited as evidence of the harm coming from such practice. It was shown, that, until recently, the weight of authority was upon the unsafe side of this very important question, and that the influence of the old obstetric dictum, that the afterbirth and its attachments should be allowed to remain an indefinite length of time in utero, in cases requiring redilatation of the cervix for their removal, was shown to have been the occasion of septicæmia, hæmorrhage, fibroid tumors and continued ill health in many cases.

All this could have been prevented by proper care. The fact was emphasized that accoucheurs should not allow cases to pass from their hands until they were relieved of all the effects of confinement.

The neglected cases formed a surprisingly large quota of gynæcologists' work.

Many of the fistulæ which come to us for operation, as has been demonstrated by Emmet and others, are produced by too long pressure during the second stage of labor, and should

have been prevented by a timely use of the forceps; likewise, much of the pelvic cellulitis, contusions, and lacerations of the cervix.

The use of antiseptic injections was referred to at length, and instances cited of harm from their neglect, and excellent results from their employment, in cases where a putrid discharge existed after abortion or natural labor.

The effects of prolonged pressure in producing conditions which called for the services of the gynæcologist, months after the attending physician had ceased his visits, was dwelt upon, and were too familiar to all to require detailed mention.

Also, the too early rupture of the amniotic sac and too much digital manipulation of the cervix uteri. Trouble arose too often from the excessive and unwise use of ergot during labor, work being thereby prepared for the gynæcologists, as well as fatal results to the child. To the delivery of the placenta and membranes by pulling upon the cord and the use of the hand within the uterus was attributed subsequent uterine disease, bringing patients within the range of gynæcology.

Gynæcologists in charge of female clinics trace the cause of many of the diseases for which women apply to them for treatment back to too early resumption of their avocations, after abortion or confinement, or to mismanagement of the third stage of labor. While some women are undoubtedly benefitted by an earlier sitting up than the customary nine days, when under such constant and able control as they receive at the Preston Retreat in Philadelphia, and can ride about and walk out in two weeks after confinement, many women and perhaps the majority are injured by it. The fact remains that involution is not completed until the expiration of about six weeks, in healthy women, and all the conditions favoring sub-involution and uterine displacement being present, many cases occur.

The process of involution is interfered with or arrested by uterine displacements, and the consequent disturbance of the uterine and pelvic circulation is a prolific cause of the hyperplasias, hypertrophies, chronic cystitis and general pelvic irritation, which we have so much difficulty in relieving.

It is precisely this class of patients who pass unrelieved from the care of one physician to another, until they finally fall into the hands of the experienced gynæcologist, who recog-

nizes the primal origin of the protean maladies, and by appropriate treatment heals them.

The forceps, when used by a skillful hand, is capable of more good to the human race than any other instrument used by the profession. More lives are saved and more calamity averted by its skillful use than by any other one instrument, and yet, holding this idea with pride and tenacity, we cannot close our eyes to the fact that the bungling use of this wonderful instrument, by hasty and inexperienced hands, is liable to bring and has brought discredit and distrust upon it. Gynæcologists are treating cases constantly, the beginnings of which date back to a forceps operation, badly performed by an inexperienced physician. The manner of applying the blades, the direction and extent of the tractive force required in individual cases, the length of the interval between times of application of this *vis a fronte*, the management of the perineum and the removal of the blades, the control of the uterus for the prevention of hæmorrhage, and expulsion of the placenta, are all points which cannot be learned in a day, or by a few trials. When we consider the effects of lack of skill and experience in the performance of the high forceps operation—the supra-pelvic operation, as Barnes has recently called it—we are led at once to give assent to the fourth proposition of Barnes in the discussion just closed in the London Obstetrical Society, viz: that in proportion as the head was arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility, and the safety of the forceps becomes less frequent. And to agree with Braxton Hicks, that the above is a self-evident fact, and as a corollary from the preceding propositions, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation are called for.

It is quite as evident that injury is done the maternal structures in version and craniotomy when performed by the tyro, as in the forceps operation. Dr. Johnson has seen rupture of the cervix produced by the hasty thrusting of the hand and arm of the operator through an irritable and partially dilated os for the performance of podalic version in a case of placenta prævia. The hæmorrhage being the element of danger, when that is under control, and the presenting part of the child can be converted into a tampon by Hicks' method of combined external and internal manipulation, the patient is saved from the

dangers of podalic version. Dr. Johnson referred to two cases when women were secured from the dangers of placenta prævia, only to die from uncontrolled oozing of blood from lacerations in the vascular cervix; and many cases are on record of metritis, phlebitis, phlegmasia dolens, cervical lacerations and like injuries, produced by the hasty, unwise, unskillful and unnecessary turning operations for the relief of placenta prævia.

Version-forceps operations and craniotomy done in a contracted pelvis, often result in damage to the soft parts. The risk, however, is necessary, and is less than the certain danger of remaining undelivered.

The slipping of the perforating scissors and the removal of spiculæ of bone by Meigs' craniotomy forceps, have produced such injury, as to give the patient little choice between Scylla and Charybdis. It might formerly have been considered the least of two evils, but by the use of the curved trephine, cranioclast, and cephalotribe, these dangers are greatly lessened.

A patient is entitled, when undergoing the exhaustion of a lingering or difficult labor, to the best of skill, and the most improved instruments, and that physician, who attempts the performance of the capital operations in obstetrics, without these necessary factors of success, assumes a very grave responsibility.

Dr. F. P. Mundé read an able and instructive paper on PROLAPSE OF THE OVARIES, which was well received and ably discussed by the society.

Dr. J. C. Reeve, of Dayton, Ohio, reported a case of EXTRA-UTERINE PREGNANCY, CURED BY ELECTROLYSIS, which was a most excellent contribution to the literature of this subject.

Dr. Reeve's paper elicited an able and animated discussion, which may be regarded as the most interesting and instructive debate of the meeting.

Dr. Isaac E. Taylor's paper on THE EARLY APPLICATION OF THE FORCEPS IN THE THIRD STAGE OF NATURAL LABOR, was a strong argument in advocacy of the use of the forceps. This paper was warmly discussed, and its principles questioned by some of the debaters.

ELECTION OF OFFICERS FOR ENSUING YEAR.—President, Dr. J. Marion Sims; Vice-Presidents, Dr. W. T. Howard, of Baltimore, Dr. Robt. Battey, of Rome, Georgia; Secretary, Dr. S. R. Chadwick, of Boston; Treasurer, Dr. P. F. Mundé. Cincinnati selected as the place of meeting in 1880.

NOTES AND EXTRACTS.

BY THE DELAY in the issue of the present number of the *COURIER*, we are enabled to give our readers an abstract of the proceedings of the late meeting of the American Gynæcological Society, taken from advanced sheets of the *Maryland Medical Journal*, sent us for the purpose, but which, unfortunately, did not come to hand as early as we had anticipated.

CONSULTING STAFF OF THE ST. LOUIS CITY AND FEMALE HOSPITALS, appointed by the Board of Health, September 11, 1879. To the City Hospital, Drs. J. T. Hodgen, J. M. Scott, P. G. Robinson, A. Jamint, R. Gebser, T. F. Prewitt, G. M. B. Maughs, E. F. Smith, J. K. Banduy, W. H. Ford, W. M. McPheeters, G. Baumgarten. To the Female Hospital; Drs. A. P. Lankford, L. C. Boisliniere, E. C. Gehring, T. L. Papin, C. H. Hughes.

"HOSPITAL SUNDAY."—A practice has for many years prevailed in London, of taking up a collection, in all the churches, on a given Sunday, for the benefit of the charitable hospitals. Thousands of pounds of money have thus found their way for distribution among the most noble of all benevolent enterprises that characterize modern civilization. It is now proposed by New York philanthropists to imitate our English cousins in this particular. The last Saturday and Sunday of the year have been chosen as the hospital days, the former, Saturday, being selected that our Hebrew brethren may be better permitted to give to the cause. The proceeds are to be proportionately and equitably divided among all the hospitals, not municipal. St. Louis should make a move in the same direction. Let denominational differences be sunk, and all religionists unite in the work.

POISONOUS CLOTHING.—The aniline dyes, now extensively used, ought to be employed with caution, since it appears they may render wearing apparel poisonous. There have been a large number of cases reported, from various sections of the country, of children having their legs poisoned from wearing colored stockings. A sad case is reported from Hartford, the victim being a young lady of that city, who had her face serious-

ly poisoned from wearing a new blue veil, which, when examined by a chemist, was found to contain a large quantity of aniline dye. This dye is obtained from coal tar, which is a residuum, obtained in the manufacture of gas from coal. Not long since, a child in Troy, N. Y., died from arsenic, sucked from a veil thrown over the child when asleep. Lately there have been cases of poisoning reported, from kid gloves, from bronze-green silk gloves, and also from shoes, lined with fancy colored leather. Poisoning from colored silks, cotton and woolen goods, has become numerous. The selection of wearing apparel is therefore becoming a serious question of personal safety.

Sanitarian.

WE NOTICE the advanced action of the Bellevue Hospital Medical College, to go into effect during and after the regular session of 1879-80. A preliminary (matriculation) examination will be required; a three years' graded course, with examination after each, before graduation; the regular winter session extended to six months; fees for the three years, \$125.00. We predict that five years from now will witness all the respectable medical schools of our country REQUIRING of their students creditable preliminary ability, attendance on three long terms, and satisfactory yearly examinations.

OUR CONGRATULATIONS to an old friend in a new dress, namely, the *Buffalo Medical Journal*, and compliments on its improved appearance and enlarged contents. But we would like to suggest a motto for our esteemed contemporary, to read: "Honor to whom honor is due;" for it would find application of the same on page 59 of its September number; "Illumination of the cavities of the body by a new instrument." "Translated from the German by A. Osterday, M. D." It should read "Ostertag, M. D., South St. Louis," and credit for the whole article should be given to the ST. LOUIS COURIER OF MEDICINE, from which it was taken, bodily, see July number, page 39. However, we must believe it was an accidental oversight, in not giving us due credit. The journalistic courtesy, observable among the medical periodicals, is, as a rule, very commendable.

AN UNBECOMING FEATURE of journalism is the practice of sticking advertisements (advertising pages) in the body of a medical journal, between and among the pages of reading mat-

ter. It not only disfigures the publication, but has the appearance of *subordinating medical literature to the interest of traffic*. Even the common literary periodicals, which are altogether under the management of booksellers, keep their inner pages clean from such defilement.—*Pacific Med. and Surg. J'l*, Sept. 1879.

Commenting on the above, the *Chicago Med. J'l and Ex'r*, Oct. '79, says: In this day, when so many sheets are merely subsidized organs of wholesale drug houses, the practice is common enough, and indirectly intended to secure that sustenance at the hands of the drug man, which cannot be obtained at the hands of the profession. The opinion seems to be prevalent that medical gentlemen are so stupid that they cannot detect the weakness of these sheets, when the evidence of it is carried on the face. Such an opinion may well be founded, but, we think differently. Enjoying as we do, the pages of our exchanges which do not exhibit this defilement, we propose to keep our own equally clean.

PLEURO-PNEUMONIA has broken out among the cattle of Putnam county, N. Y. This is a serious matter, not only to farmers of the afflicted region, but also to the people of New York city, as a good share of their milk comes from that section, and the product of cows infected with the disease is a very dangerous article of diet. Prompt measures have been taken to isolate the plague, and the aid of sanitary experts has been invoked to stamp it out. Forty or more deaths among the cattle have been already reported. The sanitary authorities of New York will use every means to prevent the spread of the disease, and watch closely lest milk from infected cows be brought to the city.

A MOST ABSURD EXPERIMENT was lately made at the Parker House, Boston, by which several gentlemen nearly lost their lives. The elevator, filled with passengers, was allowed to fall from the fifth story to the basement, a distance of eighty feet, to show the advantages of a patent air cushion, which, being at the bottom, was to break the fall. The air pressure caused by the descending cab proved too much for the elevator well wall, which burst open, scattering glass and plaster, and permitting the car to thunder down with a crash. While, miraculously, no one was killed, yet, we opine, a few spinal concussions will be heard from. The experimental trip should have been made

with an empty elevator, or it might have contained "dead weight"—certainly not human freight.

BATTERY FLUID WHICH WILL KEEP THE METALS BRIGHT: First amalgamate the zincs, then to one quart of the ordinary battery fluid, (water oij, sulphuric acid f̄ijj, and pulverized bichromate of potash 3ij), add one drachm (3j) of the bisulphate of mercury.

WHO WILL SET IN MOTION here in St. Louis, the organization and establishment of a training-school for nurses? There are nine such in the United States; three in New York, three in Boston, one in Philadelphia, one in New Haven, and one in Washington.

DR. BULKLEY will give a third course of lectures on "Diseases of the Skin," in the Pathological Amphitheatre of the New York Hospital, 7 West Fifteenth street, Wednesday afternoons, from 2:30 to 3:30 o'clock, commencing Wednesday, Oct. 8th, 1879. The course will consist of twenty-four lectures, and will be free to practitioners of medicine and medical students.

ACCUMULATION OF FLATUS IN THE BOWELS.—Infusion made with an ounce of columbo, half an ounce of ginger, a drachm of senna and a half pint of boiling water; given in the dose of a wine-glassful three times a day. The late Geo. B. Wood found the above most effectual in producing a permanent cure.

FOR NEURALGIA OF THE FIFTH PAIN, administer—

		Grams	
R. Cupri. Ammonia Sulphat.,	gr. ii.	15.	
Aquæ Destillat.,	f̄3. iii.	95	
Syr. Aurantii Flores, ad.,	f̄3. iv.	125	M.

S. Three teaspoonfuls after each meal, and small quantities from time to time, so that the entire amount will be taken

A PROFESSOR WANTED in the medical department of Central Turkey College, at Aintab. It has had two professors, one of them an Armenian, educated thoroughly in one of the best medical schools of New York. The other professor, an American, has been obliged to leave his post, and it is imperative that the vacancy be immediately filled. Here is a rare opportunity to build up a first-class institution, one that shall powerfully affect the social and religious condition of Central Turkey in the immediate as well as the remote future. Who will go?

KANSAS CITY—ITS TOPOGRAPHY AND GENERAL SANITARY CONDITION.—Dr. J. H. Van Eman sends the following, under date of September 10, 1879, to the *National Board of Health Bulletin*:

Topographically Kansas City may be divided into three divisions: First, the older portion of the city extending from the Missouri river south to Twelfth street, with a width from east to west of nineteen blocks. This portion of the city is built upon exceedingly hilly and irregular grounds, and on account of the many cuts and fills contains many stagnant ponds, many of them covering as much as one-half a block and with a depth of water varying from a few inches to 8 or 10 feet. Into these stagnant ponds empty very many private sewers, and they have been the receptacles of all manner of filth. That portion of the city west of Main street extends from Twelfth to Twenty-second, and is of a width of eight streets, has the same general outlines. It is bounded on the west by what is known as the "Bluffs." That portion of the city south of Twelfth street and east of Main, an area of ten by twelve blocks, is a smooth, comparatively level tract of land, with good drainage southward to a small stream which empties into the Kaw River. This I will call the second division. It has but two ponds made by fills across a ravine. The third division is bounded on the north by the Missouri River, east by the Bluffs, south by Turkey Creek, and west by the Kansas River. It is an alluvial river bottom, with a subsoil of fine sand, and has but little or no drainage, with numerous ponds, the result of street filling of the old bed of Turkey Creek. It is largely occupied by depots, railroad tracks, packing-houses, elevators, mills, &c. In rainy weather there are an immense number of shallow ponds, which in dry weather are without water. The population of this part of the city is about 8,000 or 10,000, mostly people in very moderate circumstances and principally dependent on their daily labor for their bread. The drainage of the first district is into the Missouri River; the second into Turkey Creek. The major portion of the third district may be said to have no drainage, except a small portion of the northeast part, which has a badly-constructed sewer. We have no general system of sewers. The water supply is from wells and cisterns and from the Kansas River by means of the Holly system of water-works. Kansas River water is very hard. Enteric troubles, particularly among

children, have been exceedingly rife and very fatal in the past summer. None of the exanthematous fevers are now in existence. Malarial fevers are now prevailing, being our endemic fever. Some few deaths have been reported of typhoid fever, a somewhat rare disease in this locality. What is usually known as typho-malarial fever is now prevailing to some extent; quite a large number of fatal cases have been reported in the past six weeks. The deaths from all causes in the month ending August 31, were 107. Our population is now estimated at 60,000 in round numbers.

KEEPING COOL IN A HOT CLIMATE.—We here in St. Louis have lately been suffering so greatly from hot and oppressive weather that the ingenious resorts of Rev. Dr. Chamberlain, of Arcot, India, to keep cool, were read with refreshing interest. The Doctor says, in a late letter to the *Union*: “The thermometer stands at 107° in my office all day, and 97° in my house all night. At Madras last week the heat of the day went as high as 108°. I have heavy literary work to do. Above 95° the brain refuses to work vigorously, and more than that, my old friend, the jungle fever, seizes those times for his visits. If I can manage to pull the thermometer down ten degrees, I can keep the fever off and my brain in a working condition. I have had to make a diligent study of this problem, and as I have met with some success, it may not be uninteresting to others to know what means I take. It pays us to give attention to keeping cool here, as much as it does you to keeping warm in the winter in America. And those of us who have close literary work to do must give special attention to it.

“My house is, India fashion, of one story, but is smaller and lower than is usual in this country. It is ten by twelve feet. In the middle of each end in a door. As my study-chair stands almost in the center of the room and directly between the east and west doors, there is a clear sweep for the wind through from east to west and from west to east. The roof, only eight feet above my head as I sit, is of tiles, resting on palmyra rafters. We have no plastered ceilings here, but to keep the heat from striking through the tiles on our heads we have sheeting sewed together and stretched across where a ceiling should be. This we take down and wash from time to time in place of white-washing.

“The low, tiled roof, however, lets the heat through unmer-

cifully. So I have put up pillars a foot high on the eaves and the ridge, and, placing bamboos on them, have made a thick thatch roof which not only covers the tile roof but comes down, making a veranda ten feet wide all around, thus keeping the sun off the walls. There is thus a foot of air always circulating between the two roofs, and that helps a good deal to keep my study from being heated by the sun.

"I cool the air in the study by taking the root of the kuskus, an aromatic plant, whose root, when washed and prepared, looks not unlike fine oat-straw, with a refreshing odor when wet, and braid this into a screen a little larger than the door before which it is to be hung. It is fastened to the door-frame at the top, and tied out two feet at the bottom so as to be slanting. If this can in any way be kept moist, the intensely dry air at this season, in passing through it, sucks up the moisture very rapidly, and the process of evaporation cools the air some ten or twelve degrees. I have one of these over my eastern door and one over the western, so that whichever way the wind blows from, it must pass through one of these "kuskus tatties," as we call them. To keep them wet I contrived some years ago a self-tipping trough, which is hung on a pivot at each end just above the "tatty."

"The trough is a V, with one lip shorter and more perpendicular, and the other longer and running out more horizontally, thus *V*. Against the wall, over one end of this, is suspended a square tub with a faucet which allows the water to trickle into the trough. The water in the trough rises slowly and spreads out on the more horizontal lip until that becoming the heaviest tips over with a splash that sends the water all over the slanting tatty. I turn the faucet to let the water run faster or slower according to the dryness of the atmosphere. Some days it must tip once a minute to keep the tatty wet. To-day, as I sit writing, it tips only once in three minutes, as the air is not so dry. It takes only twelve to fifteen gallons of water to keep one going all day, and that in a dry day will reduce the temperature of the room from ten to twelve degrees, and the whole thing is exceedingly inexpensive.

"I have just taken a 'head douche,' and my brain is much relieved. Some of these hot days I could not get on without it and do any considerable mental work. Hanging up over the bath-tub is a porous water-jar, made of clay and baked without

glazing, and holding about four gallons. The water oozes through all the pores, and the evaporation from the entire external surface cools the water to some fifteen to twenty degrees below the surrounding atmosphere. I have just tried the thermometer in it. It stands at 74° , which is ten degrees cooler than the water was when drawn from the well and put in it this morning. Over the edge of this water-jar, or pitcher, hangs a bent tube syphon. I bend my head over the tub and under the syphon and start the water. It runs, cool and refreshing, on to the back and head and neck, cooling the brain and shriveling up the congested blood-vessels, and giving immense relief. My hair I keep shingled to about half an inch in length, and this retains considerable moisture to evaporate in the next half hour or so and keep up the cooling process.

"My punka chair is a comfort. I found that in my literary work, where I have so many dictionaries and books of reference open, that I could not get on at all with an ordinary India punka, which hangs from the ceiling, is pulled by a coolie outside by a rope running through the wall, and stirs all the air in the room, blowing over the pages of the books and fluttering the papers on the table. So some years ago I devised a little punka to be attached to an ordinary cane-seat rocking-chair, so that the slightest motion of the chair keeps the punka in motion directly over one's head. As I sit up straight in the chair, the punka just touches my hair as it swings back and forth. It cools the head and does not disturb the books and papers, and costs nothing to work. If the hair is kept moist, its cooling effect is marvelous, and the motion of the chair is so slight, that I write with ease with my paper lying on the table and the punka in full swing.

"With these contrivances I fight the hot weather through the season, and manage to do a fair amount of work. Without them I would be utterly prostrated. It is the hottest hour of the day now, but I am holding the thermometer on my table below 90° and intend to continue to do so 'all summer.'"

MR. C. C. PEASE, general agent for Wm. Wood & Co., importers and publishers of medical books, has taken the pleasant rooms for the display of his stock, at 514 Olive Street, St. Louis. At which place he will be pleased to have the members of the profession call, at any time, to consult medical books, late journals, etc.

A MR. GARDINER died in Brooklyn, September 27, of gangrene of the face and neck, induced,—so say the attending and other homœopathic physicians—by arsenical poisoning, from the efforts of a dentist, some two months previous, to destroy an aching nerve, by placing within a tooth cavity, arsenic. The deceased was fifty years old, and apparently in perfect health. The case is of interest, as there is nothing parallel to it recorded.

An alveolar abscess was present, discharging freely. About the third day after the application to the tooth, symptoms of poisoning set in—tongue curled up rigidly, cheek black and swollen, eyes closed with swelling, jaws set and about a quarter of an inch apart. Gangrene of face, and of neck especially, continued, until, at the time of his death, all the soft parts were destroyed. Constitutional fever was present—septicæmia with its sequelæ.

Arsenic does cause inflammation, ulceration and sloughing of the gum, and if it was the excitant of the diseased action in this case, why did it extend so rapidly and freely? Was there present any constitutional taint that rendered the tissues a favorable soil for such action?

The alveolar abscess simply may have been the cause of the whole trouble, being virulent, and extending rapidly (on account of favoring constitutional condition, and because of improper treatment), the poison was absorbed, pyæmic fever resulted, and the system rapidly broke down.

Dentists have occasionally been careless in the use of arsenic for the destruction of dental nerves, and the liberal agitation of the subject, growing out of the discussion of this nomalous case, will make them to be more careful in its use, or to employ some other tissue-destroyer in its place.

NOTICE.—The Eighth Annual Session of the Linton District Medical Society, of which G. W. Brown, M. D., is president, and Pinkney French, M. D., Secretary, will be held in Mexico, Mo., November 4th, 1879, beginning at 3 o'clock, P. M.

The following-named gentlemen are expected to read essays upon subjects opposite their names:

Dr. John H. Duncan, Columbia—Dyspepsia.

Dr. W. W. Macfarlane, Mexico—Medical Evidence in Criminal Cases, where the plea of Insanity is set up as a Defence.

Dr. A. W. McAlister, Columbia—Practical Hints in the Operation and cure of Fistula.

Dr. J. F. Hanna, Ashley—The Best and Cheapest Cinchona Alkaloid.

Dr. S. N. Russell, Mexico—Antiseptics in Surgery.

Dr. J. M. Foreman, Jonesburg—The Rubber Bandage.

Dr. W. W. Moss, Columbia—Practical Suggestions upon the Treatment and Operations in the more ordinary forms of Eye Diseases and Deformities.

Dr. W. Humphrey, Mexico—Abscess of the Liver; Its Modern Treatment.

Dr. W. A. Jackman, Rocheport—New Remedies Practically Considered.

Dr. J. W. Rodgers, Bowling Green—Conduct of the Consulting Physician.

Besides voluntary contributions.

NOTICE.—The Sixth Semi-annual Meeting of the S. E. Mo. Medical Association will be held at Jackson, Mo., commencing Tuesday, November 4th, at 7 P. M.

J. W. CANNON, *Cor. Secretary.*

A. E. SIMPSON, *President.*

OBITUARIES.

DR. BENJAMIN LINTON, son of the late distinguished Prof. M. L. Linton, died at his residence, College Hill, North St. Louis, on the 27th of September, 1879. Dr. Linton was born in St. Louis in 1848, where he also acquired his literary and medical education. In the fall of 1868 he matriculated at the St. Louis Medical College, and continued his studies at that institution through three regular sessions, graduating in the spring of 1871. Dr. Linton, burdened with ill-health and the duties of suburban practice, never found the opportunity of giving to the profession any of the results of his acute and practical observation, which to those who knew him best was always a matter of regret. Benjamin Linton was a man of the noblest type of character, and in his early death the profession has lost a member whose honorable and blameless life was a credit to our common calling.

DR. FRANK G. PORTER, of St. Louis, died at his residence, September 21, 1879, aged 50 years. He was of Scotch descent, and was born in Pennsylvania. Received a good preliminary education, and took his professional degree at the Cleveland Medical College, in 1851. Commenced practice in Conneautville, Pa. Removed to St. Louis, in 1854, where he remained in the active pursuit of his profession until the time of his death, excepting during the war, where he was in active service from its beginning to the close. After being mustered out, he resumed practice in St. Louis. Has been a member of the Board of Health. Was married twice, and amassed a competency.

A special meeting of the St. Louis Medical Society was held Sept. 23, to take action relative to the death of Dr. Porter, who had long been enrolled as one of its members, and who had been its presiding officer in 1873. Fitting resolutions were passed commemorative of the esteem in which he was held, and it was resolved to attend his funeral in a body.

In the army, Dr. Porter held the position of Surgeon and Medical Director, participated in many of the great battles of the West, and discharged his duties with honor to himself and credit to his country. At the time of his death, he was Surgeon to the National Guard Brigade (Militia).

Dr. A. B. TAYLOR, of Kansas City, died September 13th, 1879, aged 42 years. He was born in Pennsylvania, took his degree

of M. D. at the Rush Medical College, Chicago, in 1860, and an *ad eundem* degree, one year later, at the Ohio Medical College, Cincinnati. Served in the army, during the late war, in the different capacities of private, lieutenant and assistant surgeon. Settled in Kansas City in 1865, where he rapidly found favor and soon attained to a large practice, which he held to his death. He was one of the founders of the Kansas City Medical College, first occupying the chair of Anatomy, and later that of Surgery.

He had the largest surgical practice of any physician in his section of country, his operations including some of the rarest and most difficult, in which he was eminently successful, bone-surgery being his specialty. He was a member of and prominent in the local and State medical societies. He held an enviable position, not only as a physician, but also as a man.

Dr. Taylor was twice married, and leaves a son by his first wife. He was a Knight Templar, and was buried with Masonic honors.

Resolutions of respect and condolence were passed by the Kansas City Medical Society, and by a mass meeting of the physicians, which was held September 14th.

His professional brethren and co-laborers have our warmest sympathy in this, their sad and untimely loss.

THE DISTINGUISHED SURGEON, E. CHASSAGNAC died at Versailles, August 26th, *æt.* 74. He was a bold operator, and skillful in the conduction of his cases; invented many ingenious instruments; and effected many improvements in existing appliances and methods; such as linear écrasement and surgical drainage.

MORTALITY TABLE.

CITIES.	ESTIMATED POPULAT'ON	DEATHS.	DEATH RATE PER 1000.
New York.....	1,100,195	*2,028	24.00
Philadelphia....	901,380	*1,322	19.06
Brooklyn.....	564,448	*918	21.12
St. Louis.....	500,000	*525	13.65
Chicago.....	460,000	†677	17.66
Boston.....	375,476	*563	19.90
Cincinnati.....	280,000	*381	17.73
New Orleans.....	210,000	*332	20.55

* For the four weeks ending Sept. 6th, 1879.

† For the month of September, 1879.

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No. 5

ORIGINAL ARTICLES.

EXPECTORATION IN PHTHISIS.

By A. DERIVAUX, M. D., *St. Louis, Mo.*

MY object in writing this paper has been to gather, in a few pages, the chief conclusions of a not inconsiderable number of researches, scattered through the dogmatic as well as the periodical medical literature of the last few years. The difficulty of arranging in a methodic form, facts and opinions, culled from such various sources, must be my apology for the disconnectedness of the contribution, while the desire to save space has led me to depart from the usual custom of giving a complete bibliography of my sources of information.

The way in which patients expectorate, needs only a rapid glance. Most observers agree on three different forms. In the most usual, the sputa are rejected in small amount and almost regular succession, though not with the same facility. In some, a single strong expiration will bring out a sputum, in others it will require violent efforts:

this accounts for the more or less frothiness of the expectoration.

The second form takes place by disgorgement; the matter comes up in amount altogether out of proportion with the cough. This happens when the mucous lining of the larger bronchial tubes has, from ulcerations or maceration of long-standing, lost its reflex excitability, so as to allow the excretion to accumulate.

The third form is a sort of gush, and follows, usually, a violent cough; it is sometimes of such abundance as to simulate vomiting; hence the name, *vomica*.

No reliance can be placed on expectoration in a diagnostic point of view, at the onset of tubercular consumption; hæmoptysis is indeed a symptom of paramount importance, the study of which I eliminate as foreign to the subject. But besides true hæmoptysis, we meet with sputa simply striated with blood; then, and only then has expectoration some value in the first stage of tuberculosis; so we hasten to the second stage.

The transition between this and the first is marked by a notable change in the sputa; first whitish, mucous and frothy, they gradually become dense, greenish, striped with yellow lines of muco-pus, and dotted with small white flakes not unlike minute particles of cooked rice. Shortly, but sometimes also after considerable delay, according to the rapidity of the inroads made by the disease, the yellow stripes encroach upon the mass till they blot out all the rest; the expectoration is then homogenous and heavy, but does not, as it has been said, always sink to the bottom in water; if it has been long retained in the bronchi, it is too much beaten up with air for that, besides being usually mixed up with the frothy mucus of the first period.

When this is not the case, it swims in a limpid, watery secretion and affects what has been called the *nummular* form, being then more dirty-grey than yellow in color. This nummular expectoration has been, by various auth-

ors, wrongly given out as characteristic of tuberculosis. It occurs whenever the muco-pus is excreted along with a thin, watery fluid, and is quite frequent in acute and chronic bronchitis, particularly in bronchial dilatation and measles, as pointed out by Chomel.

The presence of blood, whether in the first or second stage, is not always easily made out. It may, when in very small amount, tinge the mass with a doubtful pink shade, and oftener still, in expectoration previously dirty-yellow, with a true madder-brown tint. Not unfrequently has kermes or extract of krameria been mistaken for blood. In doubtful cases, the microscope is the only reliable test.

The amount of expectoration varies greatly in this stage. It is well known that adults spit considerably more than children and old people. Many patients affected with melancholia and lypemania die of phthisis without ever spitting, they swallowing whatever they expectorate. Sometimes a patient will fill up a spittoon in a few minutes. This frequently happens, says Andreal, when the patient wheels on the side opposite to which exists a large cavity; pectoriloquy is then, upon examination, found, where gurgling was heard before. That an abundant expectoration at the beginning of a confirmed phthisis is a bad omen, was already professed by Hippocrates.

Pidoux maintains that the prognosis is the more unfavorable, in proportion as expectoration is easy, opaque and spread in large patches; that on the contrary, the prospect brightens a little if a spasmodic and convulsive cough brings forth only a transparent and glairy sputum. This he explains by the supposition that the latter form partakes somewhat of the antagonistic properties of asthma against the tubercular process; while it lasts, the fever and inflammation, which hasten so much the disintegration of the pulmonary tissue, are very slight, and leave time for the treatment.

One might, perhaps, better explain it by the production of emphysema, a not uncommon occurrence in phthisical

persons, after a hacking cough of long-standing. Under influence of emphysema, a partial atrophy of the capillary vessels of the lungs is produced, the local contraction of the circulation checks the tubercular hyperplasia and favors the calcareous degeneration of the new growth. Shortly before death, and also during intercurrent acute diseases, expectoration diminishes considerably, sometimes stops altogether. The weakness of the patient accounts for this in the first case; the deficiency of the secretions in the second. When suppression of the expectoration does not take place before death, usually the sputa turn quite diffuent, and are sometimes encircled by a pinkish areola. This would oftener be the case, were all the patients to expectorate to their last hour, as the necropsy almost always shows the bronchial secretions more or less tinged with blood.

Ancient authors claimed to have frequently found, with the naked eye, tubercular matter in the sputa. Closer investigation has shown this to be a delusion, the small yellow flakes, looked upon as the *corpus delicti*, being merely conglomerated epithelial debris.

So far, nothing in the outward characters of expectoration warrants us in drawing a rigorous conclusion as to the existence of tuberculosis; purulent and bloody sputa, with their multifarious appearances, being met with just as well in acute and chronic bronchitis, in bronchiectasis, purulent pleurisy, the second and third stages of pneumonia, not to mention the rarer affections. The histological examination usually solves the difficulty.

MICROSCOPICAL EXAMINATION.—It is not within the scope of this paper to give at length the complex histological composition of the expectoration of consumptives, nor to discuss the value of the elements therein contained. It will suffice to state that the idea of finding in sputa the *materia peccans*, the tubercular neoplasm, has been entirely given up. The object of later researches has been the discovery of elements characteristic of pulmonary tissue; of

these, the elastic fibres alone are not disintegrated into pus or shapeless corpuscles by the ulcerative processes of phthisis, but maintain their form throughout, almost unaltered.

Schröder Van der Kolk asserts that they are to be found in the expectoration of every stage of consumption. The full description of elastic fibres is given in every manual of pathological histology; but it might not be out of place here to indicate an easy way of finding them, when they are scarce. Herard and Cornil make use of acetic acid, which dissolves pus corpuscles, and leaves the fibres intact; but Mathias Duval's process is preferable. It consists in adding to the sputum a little caustic soda, in order to clear up the mucus, then a drop of a solution of fuchsine; all the elements are instantly dyed to a beautiful pink. If now the mass is washed and beaten up with a weak solution of acetic acid, the color fades and disappears in everything except the elastic fibres. But usually, no such previous manipulation is necessary; as a rule, whenever the search is unsuccessful, it has been so for lack of patience.

The search for elastic fibres is of great value, since they are only to be found in case of phthisis, pulmonary gangrene and hæmoptoic infarctus. The latter affections are easily made out by their peculiar symptoms; if these are absent, then elastic fibres in sputa will mean pulmonary consumption, whatever be its form, tuberculosis or caseous pneumonia—whether simply epithelial or interstitial.

It has been asserted that elastic fibres always indicate the existence of a cavity. This is by no means the case; they are to be found as soon as one spot in the lungs is softening, and from this fact, important information may be derived. Their appearance warns us that no time must be lost for active interference; again, if they disappear from the expectoration of a patient, and recur again after some time, we come to the conclusion that a fresh ulceration has set in. These are facts respecting which auscultation leaves us in the dark, if the lesion is deeply situated.

The cases, in which the presence of a cavity has been ascertained beyond doubt, by both auscultation and percussion, and when still no elastic fibre is to be found for a length of time in the sputa, are not rare, and show that the ulcerative process may stop, even at that advanced stage of the disease.

Sometimes, in chronic phthisis, independent of professional causes, the expectoration is somewhat black, and the microscope detects in it, besides an unusual amount of leucocytes, vesicular cells distended with black granulations. This pigmentation may be merely inhaled soot, else it is pulmonary melanosis, incident upon interstitial pneumonia. We shall see further by what chemical process these two pigments are to be differentiated.

Monads and bacterides have sometimes been met with in the expectoration of consumptives by F. A. Pouchet. Their production has been found to coincide with putrefaction of the secretions in warm weather, when still adhering to the diseased mucous membranes. To such animalcules Mr. Pouchet ascribes the pruritus of air passages.

CHEMICAL EXAMINATION.—The object of the first chemical researches in expectoration had also been the determination of tubercular matter and pus, then looked upon as characteristic of tuberculosis. After countless experiments, the chemists have arrived at the same conclusion as the histologists: no tubercle is to be found in sputa, and pus is not special to phthisis. These experiments would therefore be of little interest to us, but for their bearing on the prognosis of the disease.

In the first place, the greater or lesser amount of pus is not a matter of indifference; this pathological production is very rich in nitrogenous elements, and when abundant is a very great source of denutrition to the patient. Nor is the loss thus sustained the only baneful result of a large purulent discharge; this, by its long sojourn in the bronchial tubes, has a slow but undeniable asphyxiating influ-

ence. The researches of Mathieu and Urbain have shown that, when exposed to the air, pus absorbs nitrogen and discharges carbonic acid, and the more so, when mixed with serum; this being the condition in which pus exists in sputa, it cannot but considerably vitiate the atmosphere that circulates in the lungs.

Caventou, the eminent discoverer of quinine, was the first to examine the expectoration of consumptives with respect to destructive assimilation, and in his wake followed many able observers—Simon, Biermer, Bamberger, Marcet, Renk, etc. The latter, under the direction of Professor Lindwurm, investigated the denutrition ascribable in consumptives directly to their expectoration. Without trying to give a minute account of the modifications of composition undergone by the expectoration under the influence of a given disease, he aimed at measuring accurately the proportions of water, mucin, albuminoid and fatty elements, and ashly residue obtained by the analysis of sputa in a given time. It would have been difficult to proceed otherwise, as it is impossible by a chemical analysis to separate the secretion of the respiratory organs from the saliva and various foreign elements with which it is mixed.

Renk investigated the expectoration of cases with large cavities. From a number of analyses he concludes that in phthisis the sputa, whatever their daily variations, always contain a larger proportion of solid elements, more mucin and extractive matter than expectoration in bronchitis; that besides, it contains albumen and fat. It differs from the expectoration of pneumonia by a much larger proportion in the latter of extractive matter and albumen, the former being chiefly characterized by the large admixture of cells in fatty degeneration. Chronic bronchitis is marked by the small proportion of solid elements, and the absence of albumen and fat; phthisis by the abundance of organic elements.

The proportion of eliminated water has little or no bear-

ing on general nutrition, but it is otherwise with organic matter. To make this out, Renk, taking into account the results arrived at by Voit, sought to determine the proportion of albumen and fat consumed in twenty-four hours, both in a fasting and in a well-nourished man; this done, he compared the figures thus obtained with those expressing the alimentary ration necessitated by the maintenance of our organs. Thus he found that in bronchitis, expectoration eliminates in solid elements 1.1 per cent. of what a fasting man consumes, and 0.6 per cent. of what a well-nourished one consumes; in a consumptive, expectoration causes a loss of 2.3 per cent. of what uses up a fasting man, and 1.2 per cent. of a fed one. These figures correspond to 1.8 per cent. and 1.1 per cent. of nitrogenous matter in bronchitis, and 6 per cent. and 3 per cent. in phthisis; which is as much as to say that a man affected with chronic bronchitis loses by his expectoration about 2 per cent. of the nitrogenous elements necessary for his sustenance, while a consumptive loses nearly three times that amount.

Respecting the mineral composition of the sputa in consumptives, all the analyses show that they contain a comparatively enormous proportion of phosphates, and, indeed, that the loss thus sustained in phosphorus and chlorides by the expectoration is nearly equal to that daily eliminated by the urine. Now, it is well known since Renz's researches, that the excretion of phosphate of lime is considerably increased in the urine of consumptives, and that the loss of flesh is in direct proportion with the amount of this excretion. Thus chemistry, by pointing out these two sources of deperdition of phosphate of lime, has evidenced the absolute necessity of combatting this loss by an early exhibition of the same salt, both in alimentation and in the shape of a medicament. It also affords an explanation of the beneficial effects of cod-liver oil, since the experiments of E. Bischoff have shown that phosphates diminish in urine after the ingestion of fatty or of hydrocarbonated substances.

The expectoration of some special forms of phthisis remains to be mentioned. In acute miliary tuberculosis, a viscous and abundant expectoration is the rule, usually streaked with blood, owing to the frequent complication of pneumonia, although in this case the sputa differ widely from those of the complicating disease. They are, as in bronchitis, whitish or pale yellow, say Herard and Cornil, but more ropy; the blood they contain is pure, and in distinct dots or streaks; which, in typhoid fever, for which miliary tuberculosis is so easily mistaken, if perchance its rare expectoration coincides with epistaxis, the blood is clotted and already altered in color from its sojourn in the pharynx.

Syphilitic phthisis is not yet admitted by the generality of the profession. The extreme abundance of its expectoration is the main feature dwelt upon by the authors who have described the disease.

When diabetes terminates in tuberculization, the sputa contain sugar and give a starchy stiffness to the handkerchief, but as a rule they are scarce, even when large cavities are present.

In anthracosis—the consumption of colliers, moulders and charcoal-burners—expectoration is black as soon as cough sets in; but black sputa are far from meaning phthisis; healthy miners, and even visitors, after a short stay in a mine spit black. This particular sputum is only pathological when persisting some time after the laborer has quitted work; it may last only a few months, but has been observed without interruption for as many as ten years, in numerous cases. If the work is allowed to be kept up, expectoration increases rapidly in amount and may become enormous; the black mass is then mixed with greenish or purulent mucus, dense or frothy, according to the cough. Kuborn relates the case of a man who expectorated daily upwards of a pint of stuff as black as ink, and W. Marshall mentions a miner 58 years old, who used to spit two pints of it every day. In other respects, the

progress of the disease is the same as in ordinary phthisis.

The researches to ascertain the exact nature of this black coloration began with Christison, and gave rise to numerous chemical processes. The easiest consists in thinning the sputum in a lixivium of soda; a stream of chlorine is then passed through the mass, which discolors all organic pigment and leaves carbon unaltered. Should the coloring substance be peroxyde of iron or of manganese, as is sometimes the case in manganese miners, chlorine could not differentiate it from carbon, but hot hydrochloric acid would by dissolving the black deposit.

The pigment of melanosis has been shown, by chemical analysis, to contain most of the solid elements of blood. By the microscope, it has been found in the shape of minute, roundish corpuscles, encased in epithelial cells, while the carbon is very irregular in form, free, and variously disseminated in the mucus.

THE INDICATIONS FOR TREATMENT derived from expectoration are important: In the first place, if this is too copious and tarries long in the air passages, it is far better to hasten its expulsion than to allow it to poison the patient by its emanations and increase the dyspnoea—often so painful in this stage of phthisis. Tonics and chlorate of potash may be chiefly relied on for this end, although it would be better in such cases not to have so much reluctance in prescribing an emetic and repeating it as occasion requires. The chief indication, however, is the diminution of the secretion, the copiousness of which is doubly pernicious for the patient, by the frightful denutrition it causes, and by keeping up a very fatiguing cough. To check this secretion many remedies have been brought forward, none of which has held its ground better than opium and its principal alkaloid, morphine. This is best given in a single daily hypodermic injection of 1 centigram ($\frac{1}{16}$ gr). Good results will also attend the exhibition of eucalyptus preparations. According to numerous observations of Dr. Gimbert, of Cannes, a place of resort for

numberless consumptives, a notable diminution in expectoration has followed the administration every day of from one to two capsules of essence of eucalyptus, of 20 centigrammes (3 grs.) each. More important yet have been the successes obtained in England and in France from the use of a creasote derived from the tar of the beech tree. The daily dose in the cases that fell under my observation at the hospice of Bicêtre, in the wards of my preceptor, Dr. Bouchard, professor at the faculty of Paris, varied from 20 to 40 centigrammes (3 to 6 grs.) So remarkable was the improvement under the influence of this drug, that I feel justified in giving from my case book a short résumé of these observations:

OBSERVATION I.—B., æt. 35, male nurse in the wards of Prof. Bouchard: Phthisis, characterized by dullness of both apices, mostly on left side; bronchial respiration and prolonged expiration; increase of thoracic vibrations, bronchophony and moist râles in left apex; pains in left side; fever, night sweats, loss of flesh, fills a spittoon in twenty-four hours with purulent expectoration. April 6th, 1876, put on creasote 0.4 (6 grs.) per diem. 14th, coughs much less; expectoration covers hardly the bottom of the spittoon. 15th, 3 or 4 sputa, simply mucous. After the 16th, no more expectoration during the two months that patient remained under notice. Physical signs gradually disappeared.

OBSERVATION II.—Miss G., æt. 22; has lost a brother from consumption; coughs since fifteen months; has had eight or ten hæmoptysies; steady pain under left clavicle; loud bronchial respiration, slight bronchophony, no dullness on percussion; expectorates yellow sputa. Began last fall to take creasote, 0.20 (3 grs.) daily; has had four hæmoptysies during winter. June, 1876, has had no blood-spitting since four months; cough and expectoration have disappeared; pain persists.

OBSERVATION III.—Mrs. B., æt. 39, lost from phthisis a brother, a sister, a daughter and an uncle; began to cough

when 36 years old; has had expectoration striated with blood. November 17th, 1875, dullness and moist bronchial râles under left clavicle, night sweats and emaciation, copious yellow expectoration; begins then treatment by creasote 0.20 (3 grs.) December 19th, cough and expectoration much reduced. February 28th, 1876, expectoration almost insignificant.

OBSERVATION IV.—Mrs. C., *æt.* 17, coughs since August, 1875, much more in 1876; purulent expectoration, diarrhœa, night sweats, purulent discharge from right ear, dullness under right clavicle, moist râles and broken respiration in both apices. March 29th, 1876, begins creasote 0.30 (5 grs.). At the end of April, coughs and expectorates much less.

OBSERVATION V.—Mr. R., *æt.* 27, has had syphilis when 24, and a severe bronchitis when 26 years old; has been coughing ever since; huskiness of voice first, now complete aphony; abundant yellow expectoration, flatness on percussion, and numerous coarse bubbling râles under right clavicle. End of November, 1875, is put on creasote 0.20 (3 grs.). End of April, 1876, voice has returned, cough much less frequent, expectoration almost disappeared.

CASES FROM PRACTICE.

LABIO-GLOSSO-PHARYNGEAL PARALYSIS.

By J. K. BAUDUY, M. D.

A lady aged sixty was referred to me by my friend, Dr. Glasgow, for a nervous trouble of the rarest character and greatest interest. Her son, a most intelligent professional gentleman, informed me that in November, 1875, the first perceptible symptomatic indication occurred in phonation. He and his brother noticed a change in their mother's voice which was quite astonishing to them. His brother, who had not seen her for over four years, was so impressed with this alteration in the vocal organs, that he remarked it the moment he saw her. She had always been a fluent, clear and rapid talker, easily excited. At first only a slight difficulty in enunciation was observed, especially in rapid and excited talk, and this difficulty gradually increased, though so gradually as not to be very marked. Her general health then became more or less impaired. In 1876 the difficulty in talking increased to such an extent as to make her utterances almost incomprehensible. In 1877 her power of articulation was almost gone. During this period another difficulty became apparent—more or less numbness in her fingers. No mental enfeeblement or defective memory have ever occurred. She has continued to fail more or less in strength and general bodily vigor. Her gait has become less steady, and she is easily fatigued. Such was the history of her case up to the time she was placed under my professional charge. Prior to seeing the patient, I felt satisfied that the case was one of labio-glosso-pharyngeal paralysis, in consequence of the presence of other symptoms, which I ascertained by questioning her son. I accordingly expressed this conviction to him, and a careful examination of the patient revealed the correctness of my theory. I found her entirely unable to converse, to protrude

the tongue, or touch the roof of her mouth with the tip of that organ, which was entirely paralyzed. It was deeply furrowed and wrinkled, and presented evidences of vermicular movements. These conditions plainly pointed to an involvement of the hypoglossal nerves. In addition to the presence of the lingual paralysis, there also existed a similar condition of the orbicularis oris, with some dribbling of saliva and depression of the labial commissures. There, of course, consequently, was present an inability to whistle, blow out a candle, suckle or kiss. There was an involvement of the glosso-pharyngeal and branch of the pneumogastric, with a progressively increasing dysphagia. She had frequent attacks of strangulation. The dysphagia was so great that she was compelled to subsist almost entirely upon liquids, or at least to take her food very finely minced, and even notwithstanding such precautionary measures, she still was the victim, occasionally, of attacks of choking, making her sustenance a matter of great gravity. Another complication, so far as the pathology and symptomatology were concerned, was the existence of a decidedly pronounced progressive muscular atrophy. Usually in such cases there is no involvement of the anterior spinal cornua; the disease being strictly bulbar in origin, remains an intra-cranial affection.

Recent writers, however, claim that a degeneration of the trophic nerve cells of this vicinity is not a very infrequent complication, resulting in the development of more or less progressive muscular atrophy.

Such a condition was plainly apparent on the left side of the body and affected many of the voluntary muscles of both the upper and lower extremities, especially in the hand, producing the most characteristic *main en griffe* I have ever witnessed.

The thenar and hypothenar eminences on the same side had entirely disappeared, with corresponding atrophy of the inter-ossei muscles.

Great muscular weakness on the left side was thus produced so that she stumbled and fell very readily. The sterno-cleido-mastoid and trapezius muscles had their functions almost entirely suspended, which condition, of course, pointed to nuclear degeneration of the spinal accessory. Not the slightest evidence of *aphasia* existed, as was naturally to be anticipated; the lesion being bulbar, not convolucional, *aphasia* was entirely absent.

Agraphia and *amnesia* were likewise absent. She wrote with perfect facility, having little tablets, by means of which she was accustomed to converse. She expressed in this manner her ideas most intelligently. When under the influence of excitement she made use of certain inarticulate sounds, which had more or less meaning to those of her family constantly with her, but which I was totally unable to comprehend. Though seeing her frequently, I have never heard her successfully attempt to articulate a single word. As I said before, the absence of *agraphia*, *amnesia*, *aphasia*, defective memory, an impaired intellect, prove conclusively the bulbar origin of the disease, especially when taken into consideration with the symptoms actually present. There existed, therefore, a bulbar degeneration of the nuclear origin of certain nerves which originate in the fourth ventricle.

Drs. Hodgen and Prewitt subsequently saw the case and confirmed the diagnosis.

This disease was familiar to Trousseau and Dumenil, but was first described and nosologically arranged by Duchenne.

Atrophy of certain cranial nerves is the most distinctive pathological feature—atrophy of the *roots* of the hypoglossal, facial, spinal accessory, glosso-pharyngeal and pneumogastric nerves. The nucleus of the hypoglossal is principally affected. When the disease progresses the other nerves become involved. As stated before, the trophic nerve cells of the spinal anterior cornua become implicated, according to Rosenthal, in the majority of cases. Not only, therefore, is there present, in such cases, atrophy of the roots of these nerves just enumerated, but also atrophy of their nuclear origin; and, indeed, the common, deep origin of all the nerves involved in glosso-labio-laryngeal paralysis, is the floor of the fourth ventricle. The disease is an atrophy of the roots; it is a pigmentary degeneration, involving the nuclear origin of those cells with which the nerve roots are connected.

Dr. Meredith Clymer, of New York, beautifully expresses the pathological condition of this affection, when he says, "that it is a pigmentary disease of an atrophic character, involving the federation of nerve-cells from which the affected nerves originate, and that those nerve-cells exist in nuclear communities, which are echeloned along the floor of the fourth ventricle, and

are, by means of multiple fibres, in connection with each other."

The etiology is very obscure.

Cold, traumatism, syphilis, etc., are credited with the origin of some reported cases. From forty to seventy years is the most usual period of occurrence. Males are most frequently affected. That the disease is rare, is evident, when it is recollected that Hammond, with his enormous experience, has encountered only eleven cases.

The course of the disease is insidious. The symptomatology has been so well illustrated by the case we have just detailed as to make it useless to develop it further. The progressive difficulties in eating and speaking are the earliest and most pathognomonic symptoms. When the facial becomes involved, there is a tendency, in many cases, to a separation of the lips. Lingual and dental consonants are particularly laborious to the patient. The saliva accumulates in the mouth. It is more or less stringy and ropy in character, and has a constant tendency in advanced cases to dribble. The velum palati of the muscles of the pharynx become soon involved, with resulting dysphagia and regurgitation of liquids. The disorders of speech and deglutition are, in course of time, followed by those of respiration, and any intercurrent pulmonary or bronchial affection must almost inevitably prove fatal. The *hypoglossal* is involved *first*, because the affection is more apt to implicate the *median line* of the fourth ventricle, where the nucleus of the hypoglossus is situated. The feebleness of the voice, noticeable in the earlier stages, sooner or later results in its complete extinction. The abolition of phonation is the result of the implication of the recurrent laryngeal branch of the pneumogastric and also the spinal accessory.

Paralysis of the vocal cords will be revealed by laryngoscopic examination. The increasing dangers to the patient are from strangulation during the attempts at swallowing, and from attacks of dyspnoea, at any time, which may terminate fatally very suddenly. The intellect, for obvious anatomico-pathological reasons, does not suffer. The bulbar disease, as it progresses, becomes more and more associated with symptoms, the result of co-existing spinal involvement. Atrophies and paralysees of a more general and extensive character become more

and more apparent, rendering the condition of the patient more hopeless and pitiful as the disease progresses. The patient's efforts at feeding himself soon failing, he must be assisted. Unable to converse or even articulate, his existence is well-nigh intolerable; powerless in many instances to move, he is reduced to utter helplessness. As graphically expressed by a recent writer, "he can manifest his mental sufferings with his eyes only, and presents the most terrible picture of human decline conceivable."

The duration of the disease is uncertain. Three or four years is the usual limitation. The prognosis is inevitably fatal, unless the patient is carried off by some intercurrent affection. In such an inexorable disease, treatment must be entirely futile. Strong galvanic currents, local venesections; cold affusions, and the prolonged use of ice-bags to the nuchal region, have their advocates. Internal medication is without avail. It is but proper to mention, however, that Benedikt, as usual, is quite enthusiastic over galvanization of the sympathetic nerve. The continuous current to the "cervical vertebrae and along the course of the hypoglossal nerves (continued daily for weeks and months)," is recommended by Rosenthal.

TRANSLATIONS.

From the German, by CHAS. A. TODD, M. D., St. Louis.

CASE OF CORTICAL EPILEPSY—PROF. DR. DRASCHE—VIENNA.

It is now scarcely more than a decennium since the theory of the localization of brain lesions was introduced and established, in the first place by clinical observation and then through experimental investigation. Within a very short time the pathology of the brain has been so perfected and established that the recognition and explanation of particular cerebral symptoms, as well as their combined expression, rest upon a degree of certitude not excelled in the case of many other proven diagnostic aids. The better the confirmatory observations and facts become known, especially at the bedside, the more reliable will be their conclusions. Thus, very recently a group of morbid cerebral phenomena, which previously had been almost unnoticed and unexplained, has been brought more clearly before the attention of the profession, and very appropriately designated cortical epilepsy. It is characterized by convulsions of one-half the body combined with unconsciousness; certain anatomical changes in the so-called motor zone of the brain surface can be demonstrated. The following case, which was diagnosed in life by the above described symptoms, and demonstrated to be such at the post mortem, is eminently fitted for publication, since the whole number on record is small.

A shoemaker apprentice, twenty-four years old, ten weeks before his admission (July 17, 1879) at the general hospital, had a severe attack of hæmoptysis; since then he has suffered from a cough with abundant expectoration, and, especially during the last few weeks, from diarrhœa, fever, night sweats and increasing emaciation. On the 14th of July the patient suddenly experienced a painful contraction of the left wrist joint, together with rigidity of the fingers. This condition lasted about a quarter of an hour, but returned on each attempt at

labor. At the same time there occurred frequent but momentary twitchings of the fingers of the left hand.

July 18.—Examination of thorax discovered tuberculosis of both lungs, dullness on percussion, bronchial respiration, consonant râles. Patient very much weakened and of hectic appearance. Expression of face stupid, pupils unaltered, voice hoarse, speech difficult but to be understood. Sphincters of eyelids normal in action. The left side of the under lip somewhat pendant, the corresponding angle of the mouth depressed and its naso-labial fold obliterated. Paresis of the limbs of left side; the leg, however, could be raised somewhat better than the forearm. In walking the left foot dragged somewhat. Evacuations voluntary, urine slightly albuminous. Although the patient lay in a semi-stupor and was slightly delirious, he answered correctly to questions.

July 19, 10 A. M.—A sudden convulsive attack, the patient screaming loudly, and afterward remaining in an unconscious state for ten to fifteen minutes. The mouth and eyes were tightly closed, the forearm and leg occasionally flexed, the former sometimes being dashed backwards against the head. When he came again to his senses, the limbs of the left side of the body were completely paralyzed. Remainder of day, semi-stupor and light delirium.

July 20.—Continuous unconsciousness and involuntary evacuations. Deglutition of fluids greatly impaired. Limbs of left side motionless.

July 21.—In the morning two attacks of convulsions in rapid succession, which lasted each a quarter of an hour. Subsequently a deeper stupor, and occasional restlessness and delirium. Drinks and broths administered only with some degree of violence.

July 22.—Occasionally a slight return to consciousness, loud râles in the lungs, without expectoration, urine and liquid rectal evacuations passed involuntarily.

During the following six days the unconsciousness and left-sided paralysis continued unchanged. Death ensued July 28.

In this case we have to do with a tuberculosis far advanced, in the course of which there first appeared paresis of the left hand and left facial nerve, then partial paralysis of the left lower extremity. This hemi-paresis increased in a short time to

complete hemiplegia, and was associated with convulsions in the parietic, and later paralyzed half of the body. The convulsions began with loud outcries and merged into complete loss of consciousness. There existed, consequently, an unitateral epilepsy. As a result of well established observation, these convulsions, confined to one side of the body, accompanying unconsciousness, are to be referred, as a rule, to cortical lesions of one side of the brain. Remembering the persistent paralysis, these lesions could scarcely be sought elsewhere than in the central convolutions of the right hemisphere. Although this diagnosis was very probable, still during life the exact nature of the cerebral lesion could not be determined. But, inasmuch as the chief morbid condition was tuberculosis of the lungs, the cerebral affection might well be brought into an immediate relation. The doubt, therefore, lay only between a possible brain tuberculosis or a meningeal exudation. The symptoms and cause of the disease, however, gave not the slightest clue for a conclusive decision. Post-mortem: Dura mater tense. Inner meninges at base of brain infiltrated with a serous, jelly-like exudation, containing numerous whitish gray bodies of the size of poppy seeds, especially in the inter-cranial triangular space and in the fissures of Sylvius. Elsewhere the inner meninges pale, slightly œdematous up to the central right sulcus, the central anterior and posterior right gyrus, and the part corresponding to the surface of the operculum, in the neighborhood of which, in the pia mater itself, and in the loose tissue between this and the arachnoid, were found cheesy bodies varying in size up to that of a pea, some rounded, some with prolongations. These bodies lay also in the cortical substance of the brain, which at such places was softened. The cerebral tissue was generally pale, infiltrated and softened; the ventricle much dilated and filled with turbid serum; the ependyma dissolved. In the lung apices abundant indurations containing minute cheesy masses; scattered through the rest of the lung miliary tubercles. The post-mortem demonstrated previous tuberculosis of the lung apices, with subacute involvement of the remaining lung tissue, chronic tuberculous meningitis of the convexity of the right cerebral hemisphere, and recent basilar meningitis of the same origin. The clinical diagnosis of disease of the cerebral cortex and of its central convolutions, was fully

confirmed, even to its exact nature, at the post-mortem. The principal lesion was a chronic tuberculous meningitis, irregularly distributed, but mainly concentrated upon the central convolutions of the right side: this manifested itself through a series of significant and correctly judged symptoms. The superadded acute basilar meningeal affection, however, did not declare itself distinctly enough to be recognized. The magnitude of the great morbid deposit overshadowed the more general manifestations of the lesser disease. These were, however, of subordinate significance, since the chief interest, both during life and at the autopsy, was centered in the peculiar group of symptoms and in their central cause.

In medical literature there are but three cases recorded having the same symptoms with the case here described and almost identical lesions in the central convolutions. Among these three the one reported by Goltammer is specially to be noted, since it appears to be almost identical with the present case, both as regards the symptoms and the results of the post-mortem examination. A tuberculous patient suffered from convulsions of the left side of the body, followed by paralysis of the left facialis in its respiratory branches, and of the left upper extremity. At the post-mortem there was found a softened deposit in the right central convolutions, dependent upon a chronic tuberculous meningitis of the corresponding meninges.

The three cases referred to are by Bernhardt—"Archives of Psychiatria and Nervous Diseases," IV., page 693; Senator—*Berlin Clinical Weekly*, 1879, No. 4-6.; Goltammer—*Berlin Clinical Weekly*, 1879, No. 24 and 25.—*Vienna Clinical Weekly*, No. 39, 1879.

CASE OF CARBOLIC ACID POISONING—DR. HAUNHORST, FORMERLY OF THE INSANE ASYLUM AT WECKERMUENDE.

At the beginning of the present year I had occasion to observe in the Insane Asylum at Weckermuende a case of carbolic acid poisoning, which I shall briefly describe.

I was called one evening to attend a female nurse who for several days had not felt altogether well, complaining of a chilly sensation, but still had not applied for medical aid. The case

was one of incipient abscess of the right forearm, which was considerably swollen, and at one place markedly reddened and very painful upon the least pressure. I enveloped the arm with pieces of batting saturated with carbolic acid, applied a bandage and allowed the patient to go to bed. I afterwards mentioned my suspicion that the acid solution was too strong, as my fingers became insensible and began to chap. A few minutes afterwards I was again called to the patient. She lay in bed unconscious, throwing herself from one side to the other; the face was highly flushed, pupils distinctly contracted, pulse infrequent, respiration labored. I removed the bandaging and applied another, using a three per cent solution. About an hour later the patient was restored to consciousness and stated that immediately after the first bandaging she felt a sharp pain in the arm and then became unconscious. She complained of a feeling of weariness in the limbs and of frontal headache. The arm exhibited, as the result of the caustic action of the acid, a number of sharply-defined white spots, under which the skin was raw. In fourteen days the arm was healed; no abscess appeared. By mistake in the dispensary, a solution of the strength of fifteen per cent had been issued, whence the misadventure.—*Berlin Clinical Weekly*, No. 40, 1879.

From the French, by A. DERIVAUX, M. D., St. Louis.

PALATINAL AND PHARYNGEAL SYPHILITIC GUMMATA.

Condensed from a Clinical Lecture of A. FOURNIER, delivered at the Hospital St. Louis, Paris, and contained in the *Journal de Médecine et de Chirurgie Pratiques*.

Among the grave tertiary lesions of syphilis, the most insidious perhaps are the gummata developed in the soft palate and the pharynx. An exact knowledge of these is the more necessary, as they make themselves felt only when the harm is already done and almost irretrievable.

The pathological histology of the gummy production is irrespective of its location, and must not detain us; but its development in the velum is characterized by two quite distinct

periods. In the first, the soft palate is more or less deformed, according to the seat of the tumor, which is almost always near the free border; a slight bulging of the mucous membrane, an increased redness and impairment of the mobility of the velum, are the only signs present; there is no pain and no functional disturbance, with the exception of a slight nasal intonation, and sometimes a little trouble in swallowing; but very seldom is the physician consulted before ulceration has set in, and then the prevention of sequelæ is already beyond his reach.

The ulceration of the gumma ushers the second period; suddenly appear a decided nasal intonation, and the nasal reflux of liquids at first, and solid aliments later. A small erosion on the top of the tumor rapidly widens and deepens, so rapidly that its beginning is seldom seen, and results in a deep ulceration, with jagged rim, like the empty cavity of a boil, soon followed by the complete perforation of the velum, sometimes by its utter destruction. No pain warns the patient of what is about to happen; hence the necessity for the physician to watch him closely, and to act rapidly as soon as a limited thickening shows the presence of a gummy tumor, which at this stage equally rapidly disappears under specific treatment.

In the pharynx these growths are not rare, and often coincide with those of the velum; they are usually circumscribed, but sometimes also diffused, in which case the ulceration becomes enormous. The progress of the lesion is here also quite insidious, if it is limited; if diffused, there is a slight dysphagia, nasal intonation and salivation; the inspection of the pharynx detects ulcerations of the same nature as on the soft palate, unless the gumma has its seat behind the latter, in which case its detection is by no means easy, the only symptoms present being a catarrh of the posterior nares, and, if one or both eustachian tubes be obstructed, a unilateral or bilateral deafness; necrosis is very apt to follow the ulceration, and as at this stage the specific treatment often fails, the impairment of health from exhausting salivation, suppuration and difficulty of deglutition may end in cachexia and hectic fever.

Frightful complications sometimes supervene. In a case of Prof. Laségue, the internal carotid artery was opened by a tertiary syphilitic ulceration in the supra palatal region of the pharynx. Necrosis may affect the cervical vertebrae and give

rise to medullary complications. In Delpech's case, a large part of necrosed occipital and sphenoid bones were eliminated through pharyngeal gummosus ulcerations. Cicatricial deformations are not less to be dreaded. Stricture of the gullet, to the extent of not even admitting the tip of the finger, has been observed, oftener the communication between the nares and the pharynx is obliterated, thus causing deafness, impairment of voice and respiration.

The inference from the foregoing is imperative. Whenever a syphilitic patient has a persistent coryza, and examination of the retro-palatal region of the pharynx must be carefully made, either by the mirror, or by raising the soft palate while the tongue is depressed. This manœuvre is not difficult, and is usually sufficient. The handle of a teaspoon may serve the purpose.

The treatment must be rapid and energetic. Its basis is iodide of potash, 3 grm. (45 grain) a day to begin with, adding 1 grm. (15 grains) every day, to bring the daily amount to 6 grm. (90 grains); mercury in the shape of inunctions is advisable. The gummy swellings are to be painted every day with tinct. iodine; along with this the patient will be instructed to gargle several times a day the following solution:

R. Aquæ distillatæ,	℥viii	250 Grams.
Potassii Iodidii,	ʒi	4 Grams.
Tincturæ Iodinii,	f ʒ ss.	2 c. c. M.

This treatment obtains whether the gumma be ulcerated or not, also when perforation has already taken place, but this has to be cauterized besides by the nitrate of silver. If not larger than a line or two, it may yet heal up by granulation. Tonics are also to be insisted upon, together with an invigorating alimentation.

From the French, by DR. E. M. NELSON.

DIMENSIONS OF THE HEAD OF THE FŒTUS.

MM. Budin and Ribemont publish in the *Archives de Tocologie*, August, 1870, an elaborate paper with full statement, in tabular form, of the results obtained by them in 211 cases,

where they made careful and exact measurements of the dimensions of the heads of fœtuses. The following is a summary of their results:

"1st. The dimensions of the head of an infant of the average weight of 3,250 grammes (7 lbs. 2½ oz.), are: Max., 13½ centim. (5.31 in.); occipito-mental, 13 centim. (5.11 in.); occipito-frontal, 11½ centim. (4.52 in.); sub-occipito-bregmatic, 10 centim. (3.937 in.); bi-parietal, 9½ centim. (3.74 in.); bi-temporal, 8 centim. (3.14 in.); bi-mastoid, 7½ centim. (2.95 in.); great circumference, 33 centim. (14.96 in.); small circumference, 31½ centim. (12.4 in.)

"2d. The sub-occipito-frontal diameter and the corresponding circumference for an infant of the average weight of 3,250 grammes are such, that the head should traverse in the course of the uterus, the vagina and the vulva, a canal and orifices dilated to a point such that they measure 11 centimeters in diameter and 32½ to 33 centimeters in circumference.

"3d. The diameters of the head seem not to be, for equal weights, more considerable in boys than in girls. It is then, not the sex, but the weight of the child which causes the variation in the volume of the head.

"4th. The dimensions of the head (diameters and circumferences) and the total length of the body increase progressively as the weight of the fœtus increases.

"5th. The increase of dimensions of the head and of the length of the body, although progressive, are far from being proportional to the increase of weight of the infant."

FREQUENCY OF PULSATIONS OF FŒTAL HEART.

Dr. Georges Dauzats, of Bordeaux, after studying carefully the published observations of other writers, and comparing them with 107 carefully recorded cases of his own, concludes that—

"1st. There exists a certain relation between the sex and the habitual frequency of fœtal pulsations, but it is only appreciable when the number of pulsations is above 145 or below 135. It is in the last case that it is most marked.

"2d. A number of pulsations above 145, announces, in general, a girl, and a number less than 135, a boy.

"3d. When one seeks to diagnosticate the sex by counting

the number of pulsations, it is necessary, in order to secure results of any value, to practice auscultation on several occasions during pregnancy, and in normal conditions, in order the better to obtain the habitual frequency of the pulsations.

"4th. Relying upon these data and leaving aside the intermediate cases between 135 and 145 pulsations, one will be correct seven times out of ten in his predictions.

"5th. The service which obstetric auscultation can render in determining the diagnosis of the sex is quite limited, for, in about half the cases (between 135 and 145 pulsations), this diagnosis seems impossible, and even above and below these intermediate numbers, it gives only a probability as to the nature of the sex."

Further, he finds that—

"1st. The theory according to which the number of pulsations would be in inverse ratio to the size or weight of the foetus, is far from being confirmed by the facts. It is often the contrary that has been observed.

"2d. The relation between the sex and the number of pulsations is more manifest and more constant than that which associates the number of pulsations with the weight of the foetus."—[*Archives de Tocologie*, August, 1879.

OBSERVATIONS OF A VESICO-VAGINAL CLOACA—BY DR. CONSALVI.

The following fact, which we consider very interesting, has been observed in the obstetrical clinic of Professor Morisani, of Naples.

It concerns a woman of 25 years, who, eight months previously, was confined, after a normal pregnancy. The foetus presented by the cephalic extremity; in what position it is unknown. Nevertheless, this accouchement was most laborious, the head was arrested in its passage, and now we know not from what cause. The physician and midwife made some attempts, wholly manual, without effecting any results. The foetal head remained then in the cavity for at least six days. At the end of this time the accoucheur decided to apply the forceps.

During the first days which followed the delivery, nothing

abnormal manifested itself, but, after the first week, the patient perceived that fecal matter and urine passed out by the vulva, and not by the natural ways.

The menstrual flow appeared no more after that epoch.

Examination of the genital organs determined the following peculiarities: the external parts appear normal, the vulva is regular, the anal orifice and its sphincter are quite sound. A perineum, of about one centimetre in extent, separates the anus from the vulvar orifice. If one separates the labia majora, he discovers the entrance of the vagina, through which he comes to a body with a rugose surface, of a reddish color, which almost wholly fills the vagina, and which is reduced when pressed upon. This body is nothing else than the mucous membrane of the anterior part of the bladder. The finger, introduced by the vulva, establishes the absence of the meatus, of the canal of the urethra, of the vesico-vaginal septum, of the recto-vaginal septum, at the same time with the union of the rectum with the fundus of the bladder. There is then behind the vulva, a cavity, limited above by the anterior part of the bladder, behind by the fundus of the bladder, which is directly continuous with the rectum below, by the posterior part of that last part of the intestine, laterally by cicatricial bands, more or less numerous, and in front by the anal and vulvar orifices, the woman being considered as lying down. At the farther end of this great cul de sac, may be felt a hard body, surrounded by a network of numerous cicatricial bands. It is probable that this body is the uterus, but it is impossible to discover the external orifice. In the face of so great a loss of tissue, it was impossible to think of restoring the cavities so fused into one. Professor Morisani had recourse to the following means, which the author relates in detail, after having passed in review the different methods of episiorrhaphy employed by Frick, Baker-Brown, Suchler, Th. Auger, Benjamin Auger. He freshened the internal part of the vulva and of the anterior and posterior commissures. Six points of suture brought together these freshened surfaces in such manner that the vulva was wholly closed. A sound [catheter] was placed in the rectum, so as to permit the fecal matter and urine to flow outward, without irritating the wound. The patient was kept lying upon her back.

The results of the operation were most simple. Only one or-

ifice was preserved, the anus, and as the anal sphincter existed still, and was in a state of complete integrity, the patient was enabled to contract or relax it at will, or, speaking otherwise, to hold shut or to open according to her needs, her vesico-rectal cloaca, and thereby to escape all the inconveniences and all the accidents without number, due to involuntary and continual alvine evacuations.—*Giornale Internazionale delle Scienze Mediche*, No. 11 and *Gazette Hebdomadaire. Archiv. de Tocol.*, Aug. '79.

PORRO'S OPERATION—AMPUTATION OF UTERUS IN CÆSAREAN SECTION.—BY MANGIAGALLI.

The operations, performed according to the method of Porro, which have come to my knowledge, are twenty-three in number. I have brought them together in the following table:

OPERATOR.	NUMBER.	RECOVERIES.	DEATHS.
Porro.....	1	1	...
Chiarra.....	3	1	2
Perolio.....	1	1	...
Previtali.....	1	...	1
Franzolini.....	1	...	1
Fibono.....	3	1	2
Peyretti.....	1	...	1
Carl Braun.....	2	1	1
Gustav. Braunnt.....	1	...	1
Speth.....	2	1	1
Müller.....	1	1	...
Wasseige.....	2	1	1
Hegar.....	1	...	1
Fehling.....	1	...	1
Litzman.....	1	...	1
Breisky.....	1	1	...
	23	9	14

So, in twenty-three women operated upon, there are nine recoveries, that is to say, about 40 per cent. These statistics are the more consoling, as it is necessary to remark that all the operations have been performed in "the maternities," in which a recovery has never been observed after the classical Cæsarean

operation, and that Franzolini and Previtali operated upon dying women, and Hegar upon a uremic woman, affected with interstitial nephritis.—*Annali di Ostetricia, Ginecologia e pedi-atrice, Archiv. de Tocolgie*, August, '79.

In the *Annales de Gynecologie* for August, M. Tarnier reports two more cases of this operation, one terminating fatally, and the other in recovery. In the former case, natural delivery was prevented by a fibroid tumor with adhesions in the pelvic cavity. The membranes had ruptured a week before the operation was performed, and during the last three days the liquid escaping from the vagina had become more and more offensive. On performing the operation, the fœtus and placenta were found to be absolutely putrid. The woman died of septicæmia, three days afterward.

In the second case, the operation was performed on account of excessive pelvic deformity, the result of rachitis. The operation was performed March 20th, and the wound was entirely cicatrized only at July 20th. She was able to be up May 1st.

EXPERIMENTS IN ARTIFICIAL DIGESTION.

At the meeting of the *Académie de Médecine*, August 12th, in presenting a paper of M. Mourrut, entitled "*Researches upon Artificial Digestion*," M. Vulpian communicated a note upon the action of digestive ferments employed in the treatment of dyspepsia. Experiments upon artificial digestion convinced him, in the first place, that pepsins prepared at different pharmacies have not the same degree of digestive power; and then, that the addition of alcohol to an acidified solution of pepsin, or to natural gastric juice, retards digestion. Whence the conclusion that we should refrain from prescribing the wines and elixirs of pepsin. M. Vulpian has also demonstrated that diastase and pancreatine, mixed with natural or artificial gastric juice, are far from exercising upon amylaceous matters an action so energetic as when they are placed in contact with these materials in pure water. This fact of the influence of the acids upon these ferments was known, but it remained to determine if, after having been in contact with the gastric juice in the stomach, they would recover all their intensity of digestive

action on arriving at the duodenum. Such is the question which M. Mourrut has proposed to answer.

After having obtained negative results on adding to these ferments some drops of chloro-hydric acid, M. Mourrut neutralized them exactly. The diastase recovered then its activity and saccharified rapidly the starch which had not been affected before. The pancreatine, on the contrary, did not regain its saccharifying properties. Experiments relative to the peptonizing action of pancreatine have been less clear; but they speak to a certain extent in the same sense. Other experiments have led M. Mourrut to believe that, if alcohol does not prevent the action of pepsine upon nitrogenous substances, it retards it, and finally, that alcohol retards also the digestive action of diastase and of pancreatine.—*Archives Gen. de Médecine*, October, 1879.

CHLORAL—CHLOROFORM—ETHER.

As modifications of the circulation in the vessels, it is determined (1) that the flow of blood in the capillaries diminishes slightly at the commencement of chloralization and of etherization, to increase considerably later; (2) that this flow, after a very transient increase, diminishes at the beginning of impregnation by chloroform, to become afterwards gradually more considerable, without attaining its normal rapidity. As to the cerebral circulation, chloroform produces anæmia, while ether and chloral produce hyperæmia.—Note of M. Arboing, *Archives Gen. de Médecine*, October, 1879.

The same writer has found that the sensitive plant is affected by anæsthetics. Chloral does not act as an anæsthetic upon this plant; chloroform and ether, introduced by the leaves and by the roots, produce anæsthesia, as in animals.

INFLUENCE OF THE MENSTRUAL FUNCTION UPON THE PROGRESS OF PULMONARY PHTHISIS.

Dr. Daremberg presented to the Medical Section of the International Medical Congress a paper upon the above subject, of

which the conclusions are as follows: In the woman menstruating regularly, each catamenial epoch may be the cause of a simple congestive aggravation, hæmorrhagic or inflammatory. When the phenomenon of ovulation, characterized by all the congestive molimen of the ovarian organism, is preserved, while the menstrual flow is suppressed, the reflex congestive phenomena are still more formidable.

When the menstrual flow persists after the suppression of ovulation, this pathological condition has no reflex congestive effect upon the lungs. It is the same when the menstrual function has totally disappeared, either at the physiological or pathological menopause.

From these facts result the following therapeutic indications:

In every phthisical woman, it is well to observe the local and general state at the menstrual epochs, and at the least warning to prevent the reflex congestive molimen by liberal use of sedatives, as digitalis, bromide of potash, sulphate of quinine, and by revulsives *loco dolenti* (blisters, croton oil, flying cautery).

It would be necessary to act in the same way in the first periods following pregnancy.

When the courses cease while ovulation is continued, it is necessary to attempt to re-establish the courses by external applications (sinapisms and dry frictions of the lower limbs, leeches to the thighs), and by moderate purgatives. If this is not successful, the ordinary emmenagogues should be employed; even if the courses do not appear as before, the derivative effect is obtained and the danger is averted.

If, ovulation having ceased, the courses continue to come, this hæmorrhage, ordinarily abundant, becomes a cause of anæmia, which it is important to diminish with much prudence. It is the same with leucorrhœa.

When the menstrual function is wholly suppressed, it would be well to avoid making the courses appear, which would become, without any useful end, a new cause of enfeebling.—*Archives Gen. de Méd.*, October, 1879.

CINCHONA CULTURE IN THE EAST INDIES.

At the International Congress of Medical Sciences, at Amsterdam, Section of Pharmacology, Dr. Van Gorkom, director of

the culture of quinquina, at Java, made a very interesting communication, of which these are the conclusions :

1st. The acclimation of the cinchonas in the East Indies has been crowned with complete success. The fear of seeing a cessation or suspension of the supplies of cinchona bark, which arose from the extravagant working of the forests of America, is thereby fortunately dispelled.

2d. The regular culture of cinchona has contributed much to the estimate of the value of the plant as a botanical species, and of the parts which are utilized in medicine.

3d. The exterior of the quinquinas does not indicate their richness in active principles; the anatomical structure giving no more sufficient information in this regard; chemical analysis alone can demonstrate the intrinsic value of it.

4th. The individual difference of quinquinas genealogically identical, although remaining always remarkable, is rather quantitative than qualitative.

5th. The culture of the cinchonas in others than the native country, has not deteriorated the barks. However, the cinchonas seem very sensitive to influences from without. To prevent their hybridization, the planters will have to maintain continual care and a judicious selection of seeds.

6th. The planters will have to give special attention to the production of material for the manufacture of quinine. It will be then the cinchona ledgeriana and the cinchona officinalis which should be preferred, while the cinchona succirubra will always be well received for pharmaceutical preparations.

7th. The development of the cinchonas in the East Indies appears to depend rather upon the nature of the ground and of the soil, than upon a difference of elevation. It seems reasonable always to keep within the limit of from 4,500 to 5,500 feet in altitude.—*Gaz. Hebdom.*, October 3, 1879.

MODERN SPECIALISTS.

Dr. Carlo Liebman, of Trieste, says: "I am not willing to allow this occasion to pass without stigmatizing the modern specialist with all boldness of speech, as a man who has given

all his care to the study of an organ or system, forgetting that that organ or system forms an integral part of an individual. He studies the flexions and the versions of the uterus, deformities and solutions of continuity of the vaginal portion, stenoses of the cervical canal, etc., etc., all those affections which most gynæcologists regard as the source of a thousand ills. And what is worse, is that, according to them all, these maladies are curable by a surgical treatment of the supposed anomaly, which surgical treatment sometimes neither corrects the local affection, nor affords relief to the general state, and in some cases injures instead of relieving."—*Archives de Tocol.*, Sept., 1879.

[By "modern specialists," we are sure Dr. Liebman refers to those who unwisely pass directly from the college or hospital into the practice of a specialty. A physician, after a general practice of ten or fifteen years, may confine himself to a single department, with both profit and advantage to his patients.—ED.]

From the French, by P. E. FIQUET.

VEGETABLE PEPSINE.

A late communication to the French Academy of Sciences, by Messrs. Würtz and Bouchut, gives the result of their very interesting discoveries on the sap extracted from a palm-tree in South America, which is well known as *Papaya-carica*. This sap is said to possess very active digestive properties.

It is well known that there are different kinds of digestion, and that it is a very complex action. The *meats* are digested in the stomach; the *feculants*, already modified by the saliva, have to go through their perfect transformation in the intestines; the *fatty matters* are digested *only* in the intestines. Hence, it is not surprising to meet persons, with stomachs in perfect order, who can digest, without difficulty, meats, eggs, etc., and who could, on the contrary, not assimilate the fatty matters, the feculants, etc. Some persons cannot digest veal, and yet they eat pastry and greasy food, without ill-feeling.

Each organ has its part to perform, and on its own state of health depends the integrity of the digestion.

Persons suffering from dyspepsia of the stomach, are the most numerous. The alterations of the digestive ferment of this

organ are mostly met with in "city people." It is especially to this class Messrs. Würtz and Bouchut have reference.

Years ago, Prof. Vanquelin had called the attention of the medical profession to the digestive action of the sap of the *Papaya*. Dr. Bouchut had some of this sap sent to him from South America. During two years, he has been experimenting at the Children's Hospital, in Paris. Mr. Würtz analyzed carefully this liquid. The two scientists studied with utmost scrutiny its physiological action and virtues, and it is the result of their studies which was submitted to the Academy.

The *Papaya-carica* bears the name of "Melon-tree" in South America. The fruit, of a pink color, is quite sweet, and is relished there as much as our melons are here. The trunk of the tree, and the net-work of the leaves, contain a milky juice, quite bitter, and which, if exposed to the air for some length of time, gives out the smell of rotten cabbage. This juice is obtained by incisions made into the tree; it is neutral and milky; it coagulates immediately and separates in two portions—one of them forms a kind of pulp, almost insoluble, and the other remains as a colorless, but limpid *serum*.

The pure juice being put in contact with raw meat, fibrine, cooked white of egg, gluten, etc., takes possession of them and softens them in a few minutes; then it dissolves them in a very few hours, at a temperature of 49°C. (120°F.) The milk is first coagulated, and the precipitated *caseine* is equally dissolved. False *croup membranes* taken out by tracheotomy, parasites like *ascarides* and *tape-worms*, are also taken up and digested in very few hours.

It suffices to fill a vessel with *Papaya* juice and add to it a beefsteak, cut into pieces, to see the latter disappear gradually, dissolving slowly like sugar in water.

Messrs. Würtz and Bouchut very naturally conclude, from their various experiments, that the juice must contain a digestive ferment, without doubt analogous to the one secreted by the carnivorous plants, known by the names of, *Nepenthes*, *Drosera*, *Darlingtonia*, etc., to which Messrs. Darwin and Kokar have already called the attention of the scientific world.

Messrs. Gorup-Besanez and Will had long before obtained a kind of *vegetable pepsine* out of this juice.

To sum all this up, we will say that, according to the experi-

ments made by the two French scientists, any matter containing nitrogen — milk, meat, fibrine, membranes, etc. — would be digested by the juice of the “papaya” in much larger quantity than if submitted to the action of the pepsine secreted by the stomach, which constitutes the digestive element of this organ.

The *papaine* shows this advantage over *pepsin*: that it dissolves the nitrogenous matter, not only in the presence of a small quantity of acid, but also in a neutral medium, or even in one slightly alkaline.

If future observations corroborate these first experiments of the laboratory and clinic, the science of therapeutics will be enriched by a powerful medicament, which will give to dyspeptic persons a better digestion, and which, at the same time, can be used with efficacy for the expulsion of the tape-worm, as well as in the treatment of croup.

REPORTS ON PROGRESS.

MONTHLY REPORT ON THE PROGRESS OF THERAPEUTICS.

Topical Uses of Ergotine.—ELDRIDGE has made use of this drug in rosacea, granular urethritis, gonorrhœa and otitis media. In a case of typical rosacea in a young woman, ergotine was applied on strips of lint at night. Within three weeks good effects were apparent. The general hyperemia was considerably lessened, many of the enlarged vessels had entirely disappeared, and pustules were of rare occurrence. At the expiration of six months the disease had entirely disappeared. In another case of hypertrophic rosacea of ten years standing, the hypodermic use of ergotine was tried. Injections of two or three minims of the following preparation were made into the substance of the skin, at intervals of three days, viz: Ergotine, gr. xv; glycerine, ʒss; water, ʒii, to be thoroughly triturated and strained. The result was eminently satisfactory. In two cases of granular urethritis, the results of the ergotine treatment were very gratifying. In the first case, after an Otis'

operation for stricture, the gleet discharge persisting, an endoscopic examination showed the bulbar urethra for nearly two inches to be lined with large, flabby and tender granulations. Bonjean's ergotine was applied pure, by means of an ointment syringe, after evacuation of the bladder and thorough irrigation of the canal by warm water. Six applications on alternate days effected a cure, the gleet entirely disappearing, and no trace of granulation being visible by the endoscope. The second case had a history of two years' severe and constant muco-purulent discharge following gonorrhœa, with occasional slight hæmorrhages; patches of granulation were distributed throughout the whole spongy urethra. Daily applications were made for a fortnight before the discharge ceased, and ten more days of treatment were required to remove the granulations. A useful instrument for the local application of the ergotine may be extemporized, by mounting upon a small, flexible bougie, a foot of circular, closely woven, hollow lamp-wick, of a diameter equal to a No. 12 English bougie. The small bougie is passed into the center of the wick, the lower end of the latter having been securely tied. The patient should smear this swab thoroughly with ergotine, rubbing it well into the fibre; then, after urination, and irrigation of the urethra, pass the instrument to the needful depth, there to be retained for half an hour. Ergotine, diluted with glycerine, was applied, by means of a camel's hair brush, to an old case of otitis media, with encouraging results. —*N. Y. Medical Journal, October, 1879.*

Hyosyamine in Insanity.—PRIDEAUX summarizes his results, from the use of the active principle of hyosyamus in the various diseases of insanity, as follows: 1. That in most cases of mania or where there exists great excitement of an aggressive and destructive character, as rapidity of speech and movement, the use of this drug is the most effectual and rapid means of exercising that form of restraint termed "chemical restraint." 2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess. 3. That in the treatment of the epileptic status in epileptic mania it diminishes the number, frequency and severity of the attacks, especially if its use is extended over some time. 4. That in delusional insanity, espe-

cially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition called physiological mania results, and this so eclipses the hallucinations and delusions that they are forgotten and the mind becomes clear, while if the drug influence be continued, it ultimately leads, under favorable circumstances to a permanent condition of quiescence and restoration to a healthy state of mind. 5. That in chronic dementia, associated with destructive tendencies, bad habits and sleeplessness, the condition of the patient much improves after a continued course of small doses of the drug. Some of the disadvantages of the drug are the dryness of tongue and pharynx that occurs after long administration, so that in artificial feeding it is better to use an oiled tube. Vomiting is not an uncommon occurrence soon after a single small dose of the remedy. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.—*Lancet*, (London), October 11, 1879.

Treatment of Hæmorrhoids.—YOUNG advises the administration of glycerine, dessert-spoonful twice a day, in certain cases of internal piles. The benefit derived from it is not due, as has been supposed, to any aperient action of the glycerine; for on the contrary, this drug has a tendency to confine the bowels, and the writer finds it necessary to order a powder of sulphur, 10 grains, and sulphate of potash, 10 grains, in conjunction with it. He also regards aloes as a useful aperient in these cases, combined with quinine and belladonna, or nux vomica; it does not increase the hæmorrhoidal trouble. As a preventive, nothing is more useful than cold water, applied *immediately* after each action of the bowels. This refers to the chronic stage. At the instant of the passing of the motion, a partial eversion of the bowel occurs, and any piles which may be lying on its surface come down with it; and if paper is used to clean this portion of the rectum, the sensitive mucous lining shrinks from the rough touch of the paper, and the everted portion is returned only partially cleansed, having adherent to its surface particles of fœcal matter, which keep up a constant irritation. This is why rectal sores are so difficult to heal. All that is

necessary to obviate this difficulty is to have a little vessel about the size of a tumbler, with a tightly fitting lid, and a bit of sponge. The vessel, filled with water, is taken into the closet and the soaking sponge freely applied the moment the motion has passed. Instead of the mucous surface shrinking from contact with the wet sponge, it appears to be soothed by it, and, therefore, the everted portion of the rectum is thoroughly, cleansed before it returns within the bowel.—*Practitioner*, (London), October, 1879.

Iodoform and Alum in Aural Therapeutics.—SPENCER, of St. Louis, highly recommends iodoform in the hyperplastic and ulcerative processes occurring in the middle ear. He reports several cases of polypi and polypoid granulations, which disappeared under the influence of the local application of finely powdered iodoform. In hypertrophied tonsils, equally good results have been obtained. The crystals of the drug are forced into the lacunæ; but when the lacunæ are very narrow, he first introduces, on the point of the cotton-holder, crystals of chromic acid, and after the slough has been discharged, the iodoform is employed. He recommends alum for the opposite condition of entire absence of hyperplasia, when other agents have brought about a nearly healthy condition of the tissues, but which, from exposure incident to the partial or total destruction of the drum-head, are liable to take on again unhealthy action. He says: "According to my belief, the alum must form a coagulum with the albumen of the *tissues*, and thus make an *adherent* coating. * * * The coagulum which it forms (in an earlier stage of the inflammation) with the mucous or pus becomes a considerable mass, and, as a foreign body, a source of additional irritation. * * * It may be well to remark that the application by insufflation is not to be recommended. Like the instillation of nitrate of silver, the agent is brought in this way into contact with the healthy structures of the middle ear and meatus, and might be attended with evil consequences, while it is always slovenly surgery."—*Amer. Journal of Otology*, Oct. 1879.

Dover's Powder in Night-Sweats.—MURRELL, in the course of a series of articles on the treatment of the night-sweating of phthisis, says that it is a noteworthy fact, that pathological

sweating may be arrested, not only by drugs that exert an inhibitory action on the sweat centres, but also by agents that in health promote perspiration. During the last two years he has employed Dover's powder in fifty-five cases, and only in five of them did the drug fail to afford some relief. It was found best to give the drug in ten-grain doses, at bed-time; there is no advantage in larger doses, or more frequent administration. As a rule, improvement occurred on the first or second night, but sometimes the sweating did not entirely cease for a week or more, declining gradually in severity. Sometimes the sweating returned immediately on discontinuance of the remedy, but in other cases there was no relapse for a month or longer. In no instance has the treatment done harm; but often, in addition to stopping the sweats, it eased the cough and insured a good night's rest. The writer affirms that, although the Dover's powder may be inferior to atropia, it is far more reliable than oxide of zinc.—*Practitioner* (London), Sept. 1879.

Coto Bark in the Diarrhœa of Phthisis.—YEO regards the coto of peculiar efficacy in this condition. The bark is imported from Bolivia, and the preparation he uses is a fluid extract made by Ferris & Co., of Bristol. The dose is from five to eight minims. It was found that when mixed with other substances in pilular form, when combined with *mistura cretæ*, or carelessly added to water, the coto bark appeared inert. The following formula is approved: Fluid extract of coto, 60 minims; compound tincture of cardamon, 60 minims. Mix them well together and triturate them slowly with mucilage of acacia, 3 drams; and simple syrup, 2 drams. Finally add water to 6 ounces. A table-spoonful of this mixture is a dose. In this form it is an opaque mixture, with a not unpleasant warm and aromatic taste. Two or three doses of this compound, the writer states, will check the severest forms of phthisical diarrhœa.—*Practitioner*, (London), October, 1879.

Method of Obtaining Surgical Analgesia.—GUIBERT found that anæsthesia can be substituted by analgesia, brought about by the inhalation of a greater or lesser quantity of chloroform, so that a patient, when sensibility is abolished, may retain his intellect sufficiently clear to witness the operation he is under-

going. The dangers attending the administration of chloroform would thus be greatly lessened if not entirely removed. To obtain this end the inhalation of the chloroform must be preceded by the hypodermic injection of from one to two centigrammes of morphine, about fifteen minutes prior to the inhalation. The chloroform must be administered until symptoms of mental perturbation are perceived, when the operation may be commenced; after this just enough chloroform should be given to keep up the analgesia.—*Gazette Hebdom.*, Sept. 26, 1879.

Inhalations in Pertussis.—J. LEWIS SMITH has used the following mixture by steam atomization, with excellent success, in whooping-cough:

R.	Acid. carbolic.,	3ss.
	Potass. chlorat.,	3ii.
	Glycerinæ,	3ii.
	Aquæ,	3vi.

M.

This spray is to be inhaled three times a day, and from two to five minutes at each sitting.—*American Journal, Med. Sc.*, Oct., 1879.

Atropia in Tetanus.—ADAMS had a case of lock-jaw under his care at the London Hospital, which recovered under the use of atropia, hypodermically administered. In the beginning, the one-sixtieth of a grain was injected every four hours; then every two hours, and during the treatment the one-fifteenth of a grain was used, and repeated in three hours. In the course of one day (24 hours) as much as one-third of a grain was injected. Mr. Adams thinks this treatment worthy of trial, and suggests that atropia should be pushed until symptoms of poisoning are produced.¹—*Lancet*, October 11th, 1879.

Buttermilk in Febrile Diseases.—HILDESHEIM calls attention to the use of buttermilk in diseases of febrile nature. Its composition proves that it contains largely of potassium salts, casein and milk sugar. From the former it derives its quality as a cooling laxative, while the latter sustains nutrition for a long time; and the inanition from the loss of appetite, which generally accompanies the febrile state, is thereby avoided. Quinine, digitalis, etc., may be administered simultaneously

¹For details of a similar case, see the *COURIER* for Sept., p. 263.

with the buttermilk if found necessary.—*Wiener Med. Woch.*, Sept: 22, 1879.

Topical Use of Sulphur in Diphtheria.—STUART uses the sulphur præcipitatum, rubbed up with a little water, and applied on a swab to the throat, in cases of diphtheria. He regards it as a most valuable remedy.—*Practitioner*, (London), October, 1879.

EDITORIAL.

THE NEED FOR EDUCATED AND TRAINED NURSES.

THERE is urgent need that nurses—individuals entrusted with the immediate care of the sick—should be thoroughly prepared by education and training for the faithful discharge of their onerous and responsible duties. It is within the experience of every old practitioner that patients have suffered greatly from the want of judicious nursing; the recovery of cases have been retarded, and even deaths have occurred, that would have been prevented had the physician's *advice* been supplemented by a competent nurse's *doing*. Suffering has occurred from absence of all nursing, on the one hand, and from ignorant and incompetent nursing, on the other. There is a common remark that good nursing is of more importance than the mere doctoring; it is certainly true that the physician's skill often availeth not from the want of the important accessory, a good nurse to carry out his directions.

Many of our nurses are willing and faithful, but are ignorant. A short time since we had occasion to order a vaginal injection, and, *mirabile dictu*, the high-priced nurse in attendance, with an experience of ten years, had never administered one, and did not know how. The need of more competent nurses has been so urgently felt, that already, abroad, and in some of our eastern cities, schools for the education and training of nurses have been success-

fully established, and the work should become more general. In all large cities, where are found hospitals, such training schools should be inaugurated.

Nursing may become a most useful and profitable employment, and take high rank among the more useful callings. To become a first-class nurse, one should possess many qualifications: a peculiar fitness in temperament is necessary, that at times self-control may be exercised when the patient is willful and selfish; or again, sympathy and tenderness may be demanded when physical pain and weakness are present. There, too, must be a physical adaptability, for while strength may be called in requisition, there will be need of a light and delicate hand, a noiseless step, a gentle voice and quick eye; neatness and a sense of order, perfect obedience to the attending physician's directions, presence of mind, cheerfulness, sobriety, patience, forbearance, judgment and kindness of heart; intelligence and discreteness, actuated by principles of duty, or by high religious feelings; and a good ordinary education should be possessed.

This is a long catalogue of qualifications, but the standard is not too high when we consider the responsibility to be assumed. How often do we find the nurse not only incompetent, but as independent as a high graded chambermaid, considering that when certain necessary attentions have been given the patient the duties of the day are over. Frequently the nurse is too old, too infirm and broken down in mind and body — one needing a sheltering home and to be ministered to, rather than one able to minister.

The good nurse should be informed in, and be able to make practical application of, the laws of personal and general hygiene, such as ventilation, drainage, the dangers of sewer gases, the matter of temperature, diet, dress, bathing, pure water, exercise, the airing of bed-room and bed-clothes; the importance generally of having the sick-room so situated as to receive the direct sun-light; the

spoons, cups to be kept clean and out of sight, and the utensils of convenience, such as chambers, bed-pans, urinals, slop-buckets, to be kept out of the room and to be removed immediately after use; to know that a foul odor or contaminated atmosphere *may be concealed* by fumes from burning paper or pastilles, but that it *should be neutralized or destroyed* by a disinfectant; the importance of keeping the patient free from everything that would unduly shock or excite on the one hand, or depress on the other; a knowledge of the dietetic rules of food, with ability to prepare it—proficient at least in simple cookery and willingness to do it; should know her place so well as to be able to go into a household of family and servants without causing trouble. And withal, while knowing so much, the judicious nurse should not know too much, at least to the patient, and not dictate to the physician; avoiding needless conversation on the mysteries of medicine; not officious in advising or administering medicines, especially not to interfere with the attending physician, rather to supplement his efforts; being able to recognize different symptoms and conditions as they arise, and intelligently report to the medical attendant. Guarding against noise both from without and from within the room, avoiding unnecessary conversation, useless gossip and scandal—the relation of wonderful and remarkable cases, as that of Mrs. So-and-so's. Nurses obliged to go from house to house may do much mischief by the recital of domestic stories and privacies.

These requirements of a good nurse are many and exacting, but they are not above possibilities. They can be attained through proper instruction from competent teachers in large cities where hospital and medical college advantages are to be enjoyed. To accomplish this, schools for the education and training of nurses are necessary. To inaugurate and to conduct such belongs largely and especially to the medical profession, though the necessary means will not be withheld by a philanthropic and gener-

advisability of neatness, not only in her own dress and personal appearance, but also of everything in and about the room, which should be made to wear an air of cheerfulness by the introduction of flowers, birds, pictures, etc.; the paraphernalia of treatment, such as medicines, bottles, ous public. Such at least has been the experience of institutions already established in eastern cities.

We are becoming so advanced in wealth and in the requirements of comforts, and even luxuries, that of late there has come to be a demand for skillful nurses of good character in the houses of the the well-to-do. This is in no disparagement to the kind attention and services of husband or wife, relative or friend; they do well, but better can be done.

St. Louis, for its present and future needs, should at once have established within its precincts an institution for this purpose. There is the need, there are the conveniences, there is the material, and we trust there are those ready to inaugurate the movement, which, once established, will be productive of incalculable good. A. J. S.

STATISTICS OF SCIRRHUS CARCINOMA.

Drs. Satterthwaite and Porter have contributed a paper to the *New York Medical Journal*, for September, 1879, based upon one hundred cases of carcinoma. The essay is one of great practical and permanent value, and includes within its scope remarks upon the microscopical appearance of the various forms of cancer, fully illustrated by excellent cuts, exhaustive tables of all the cases, and carefully prepared statistics of scirrhous carcinoma and epithelioma; the other varieties being too few in number for accurate deductions.

The authors divide carcinoma into five groups, viz: epithelioma, scirrhous, encephaloid or medullary, colloid and cauliflower growths, and they confine the term cancer to

them, and do not include under this caption other malignant growths, such as sarcoma, myxoma, etc.

In considering this paper it is well to remember that the older statistics, as Paget's, for instance, are erected upon clinical and not microscopic evidences, whereas in our authors' tables, ninety-five per cent. of the growths have been subjected to the latter method of investigation. In the limited space at our disposal, we shall be able to point out only a few of the more interesting facts and deductions, and shall confine ourselves principally to the statistics of scirrhus.

In regard, then, to this form of cancer, we find that the largest number of cases accessible to the knife commenced between the ages of 42 and 46; the least age was 28 years, and the most advanced 78, above which period there appeared to be immunity. In scirrhus affecting internal organs, the largest number of cases occurred between the years of 50 and 58, but extending over the period 26 to 78, with 51.77 as the average age of commencement. It is incidentally stated that the youngest recorded age at which scirrhus has been noted, was in a mulatto child, three months old, with a small deposit in the liver (S. W. Gross).

Of the external cases of scirrhus (41 in number), 87.80 per cent. occurred in females; 12.20 per cent. in males, which facts show the frequency with which scirrhus locates itself in the female breast. On the contrary, in the growths classed as internal, 76.92 per cent. were found in males, while but 23.08 were in women.

The order of frequency in locality, in 54 cases, external and internal, were as follows:

Breast, including nipple.	33	Œsophagus	1
Stomach.....	6	Back.....	1
Liver and stomach.....	2	Duodenum.....	1
Uterus	2	Ileocæcal valve.....	1
Cheek.....	1	Colon.....	1
Nose	1	Rectum.....	1
Superior maxilla.....	1	Bladder.....	1

It is interesting to note that in 13 of the 33 cases of mammary scirrhus, there is a definitely assigned cause of a traumatic nature, such as a blow, abscess, ulcerated nipple, etc. Adding together all the forms of scirrhus, that is 54 cases, there were but 10 (18.52 per cent.), in which a family tendency was probable.

The result of surgical interference, as regards relief of pain, was, as a rule, most gratifying, which is certainly a strong argument in favor of operation, even if the average expectation of life be not thereby increased. The average period between the first appearance of cancer and operation was, in 38 cases, 17.03 months. In forty cases the mortality directly attributable to operation was only 5 per cent. In 15 cases the average interval between first operation and death was 20.33 months; 16 non-fatal cases were living January 1, 1879, and had lived a period of 572 months, or an average of 35.75 months. Of course, these figures will be very much increased with the progress of time. After some further observations on this part of the subject, the authors make the emphatic statement, *that where the greatest number of operations have been performed, they have found the greatest duration of life.*

It was found impossible to decide from statistics at hand as to whether an early operation gave a longer lease of life than a late one.

The writers are of the opinion that in the majority of cases of external scirrhus, particularly of the breast, the clinical symptoms are sufficient to make the diagnosis before removal; but that in the diagnosis of internal cancer, the variety is rarely detected, and the disease itself is not suspected unless it interfere with some of the important functions of life.

In answer to the question, Has the microscopic study of the disease enabled us better to determine its real nature from the clinical symptoms? the reply is most positively in the affirmative, the authors declaring that only in a single instance (a spoiled specimen) was an error committed

in assigning a growth to its particular class in the form under consideration. One case is reported where a scirrhous carcinoma occurred primarily in the glands (axillary); an occurrence denied by many excellent observers.

The statistical histories of 37 cases of epithelioma are given with equal care and detail, but we have space but for one extract, which is to the effect that 75.68 per cent. were in males, and only 24.32 per cent. in females, or the very reverse of the figures presented in the scirrhous variety, which peculiarity finds its explanation in the fact that a large proportion of scirrhous cancers attack by preference the female breasts.

W. A. H.

BOOK REVIEWS AND NOTICES.

MEMORIAL ORATION IN HONOR OF EPHRAIM MCDOWELL, the Father of Ovariectomy. BY SAMUEL D. GOSS, M. D., LL. D., D. C. L. Oxon. *Published by the Kentucky State Medical Society, Louisville, 1879.*

This handsome little memorial volume of 64 pages, for which we are indebted to the courtesy of Dr. Coleman Rogers, chairman of the committee on publication, is to commemorate the dedication of the monument erected to the memory of Dr. Ephraim McDowell, by the Kentucky State Medical Society, at Danville, Ky., May 14th, 1879.

We must thank the State Medical Society of Kentucky for the work they have done. They have raised a monument to perpetuate the birth of one of the noblest of all operations, and have publicly claimed one of the grandest achievements of modern surgery for America; and by thus honoring the thoughtful and heroic surgeon, to whom we owe so much, they have done honor to themselves, their State and the profession throughout our land. It is well, too, that this honor was so publicly bestowed; for, as Oliver Wendell Holmes so justly says in his letter to the committee: "Our transatlantic cousins have a microphone which enables them to hear the lightest footsteps of their own discoverers and inventors, but they need a telephone with an ear trumpet at their end of it to

make them hear anything of that sort from our side of the water."

The preface gives the history of the monument. The idea of marking the resting place of the first ovariectomist originated with Dr. John D. Jackson, of Danville, Ky., and was by him brought before the Kentucky State Medical Society and from thence before the American Medical Association, but at the meeting in Louisville, in 1875, the National Association created a Prize Essay Fund (as yet however, unborn) for the perpetuation of McDowell's great achievement, and "to the State of Kentucky," as the illustrious chairman, J. Marion Sims, expressed it, "they left the grateful privilege of providing a local monument to the memory of Dr. McDowell."

A handsome shaft of Virginia granite now marks the spot, thanks to the energy with which Dr. McMurtry undertook the task assigned to him upon the death of Dr. Jackson.

The dedicatory address was delivered by Prof. S. D. Gross, and it was most befitting that it should be this Nestor of American surgery, most especially as it was he who had first definitely established the claims of Dr. McDowell as the originator of ovariectomy, in his report on Kentucky surgery, delivered before the Kentucky State Medical Society in 1852. Until that time, the origin of the operation had been generally ascribed by the French to L'Aumonier, of Rouen, 1776, and by our British brethren to Dr. Robert Houston, of Glasgow, 1771.

Dr. Gross first gives a brief history of ovariectomy: the first case known is the one at the hands of McDowell, successfully performed in Danville, in December, 1809; not until 1817 did he publish this, with two other cases of "Extirpation of Diseased Ovaria," in a Philadelphia review, but in such a manner that he was seriously criticized and his statements even discredited by some; especially caustic was the London *Medico-Chirurgical Review*.

It was upon this side of the Atlantic also that men were first found to follow his footsteps; Smith, of New Haven, in 1821, Smith, of Kentucky, in 1823, then Lizars, of Edinburgh. Then a state of dormancy followed, until ovariectomy received a new impulse at the hands of Dr. Charles Clay, of Manchester, England, in 1842, also of Dr. Fr. Bird, of London; in 1843 and 1844 came the brothers John and Washington Atlee, of Penn-

sylvania, and to them is due the great merit of reviving the operation and of placing it upon a firm and immutable basis as one of the established procedures in surgery. Both Clay and Atlee experienced a most annoying and vexatious opposition; a popular teacher even, in his lectures, invoked the law to arrest Atlee in the performance of this operation. Spencer Wells began his brilliant career in 1858. In Germany the operation was first performed in 1820, in France not until 1847.

The statistics with regard to mortality are interesting, and in their details show how with the experience of the operator his success increases. The results at the hands of surgeons inexperienced in abdominal operations are bad, their mortality is enormous, whilst the results of ovariectomy in the hands of professed ovariectomists, specialists in abdominal surgery, are indeed brilliant.

McDowell himself had but four deaths in thirteen cases, 31 per cent.; Kerth saved all but thirty-five out of two hundred and eighty-four, a mortality of 12 per cent.; Wells lost but five out of thirty-eight in his ninth hundred, 13 per cent.; Clay lost seventy-six out of two hundred and seventy-six, 27 per cent., Koeberle, during the last four years, operated one hundred times, with eleven deaths, 11 per cent.; Washington L. Atlee lost about thirty per cent. of his three hundred and eighty-seven cases; John L. Atlee lost twelve out of fifty-seven, 21 per cent.; Dunlap, thirty-one out of one hundred and forty-three, 22 per cent.; Thomas, thirty-three out of one hundred and twenty-nine, 26 per cent.; Kimball, sixty out of two hundred and forty, 25 per cent. Out of one thousand four hundred and eight cases collected by Dr. Gross in 1872, he found a mortality of twenty-four per cent. The antiseptic system seems to reduce mortality.

The brilliant success to which the innovation of the American backwoods surgeon has led, has caused an extension of the whole domain of abdominal surgery, and again Americans are the pioneers. Robert Beatty, of Georgia, first performed normal ovariectomy, a natural outgrowth of McDowell's operation; and Atlee marked a new era in surgery by his operation for the removal of uterine fibroids, though it remained unappreciated for over a quarter of a century.

Such is the history of the great operation, now a glance at

the career of its originator: Ephraim McDowell was born of Scotch-Irish parentage, in Virginia, in 1771, and soon moved with the family to Danville; a family by the way, many of whose members have held important positions; to Missourians the name of Dr. Josiah Nash McDowell, of our city, a nephew of Ephraim, is well known.

McDowell began his medical studies under the care of Dr. Humphrey, of Virginia, and completed them at the University of Edinburgh in 1793-4; it was then that he came under the magnetic influence of John Bell, a man of splendid genius, a dashing operator and an eloquent teacher, who undoubtedly exerted a powerful influence in moulding the character of McDowell.

McDowell returned to Danville. Kind and gentle, yet a bold operator, his practice rapidly increased, until he soon had the field of surgery in Kentucky almost wholly in his own hands. He was probably led to perform, for the first time in the history of surgery, his daring operation, by the inspiration he had received from his brilliant teacher, the reasonings of his own broad intellect and the knowledge that the peritoneum, when chronically diseased, is generally comparatively tolerant of the rudest manipulation, whereas the slightest interference with the healthy membrane is sure to be promptly resented. His first operation was performed in 1809. His only publications, as he wrote with great difficulty, are two short articles in the *Philadelphia Medical Repertory and Analytical Review* for 1817 and 1819. He was nearly six feet in height, with a commanding presence and remarkable muscular powers; he was liberal in the bestowal of his charities and generous to a fault in his dealings with his patients; kind hearted, benevolent and just; an excellent citizen, an original thinker, a bold, fearless, but most judicious surgeon, and, above all, a Christian gentleman.

It was not given to McDowell to see the fruit of his labor beyond the limits of his own country, as he died in 1830, hardly acknowledged even at home, as his cotemporaries were inclined to look upon his operation as the device of a crack-brained man, who deserved to be prosecuted for a violation of the sixth commandment.

Dr. Gross closes with a brief sketch of the lives of those surgeons who have been instrumental in reviving the opera-

tion of ovariectomy in this country, thus giving it a new impulse: J. Taylor Bradford, Washington L. Atlee and Edmund Randolph Peaslee. Then follows a brief address by Prof. Sayre and letters from Drs. Toner, Parvin, T. G. Richards, Oliver Wendell Holmes, Spencer Wells and T. G. Thomas. At the close comes an address made by Prof. Richard O. Cowling, of Louisville, in presenting to Dr. Gross the door-knocker of Dr. McDowell, which, as Dr. Cowling fittingly says "tells of many summons upon mercy's mission which did not sound in vain, and which has oftentimes roused to action one whose deeds have filled the world with fame."

G. J. E.

DISEASES OF THE THROAT AND NASAL PASSAGES—A Guide to the Diagnosis and Treatment of Affections of the Pharynx, Œsophagus, Trachea, Larynx and Nares. By J. SOLIS COHEN, M. D. Second edition, revised and amended, with two hundred and eight illustrations. Published by Wm. Wood & Co., New York, 1879, 8mo. Price, \$5.50, cloth; \$6.25, sheep.

This book, although it is the second edition of "*Diseases of the Throat*," issued in 1872, is essentially a new work. Many of the chapters have been entirely re-written and enlarged, and much new matter has been added, giving the work a freshness and completion which entitles it to be considered as a new book. On glancing over the seven hundred and seventeen pages contained in the book, we cannot but wonder where the author has found the time, in the midst of a large active practice, to complete such a task. But it has been done and well done, for, while nothing pertaining to throat diseases in the most comprehensive sense has been omitted, many of the most important subjects are discussed in an exhaustive manner. The author not only gives us the benefit of his own experience, the result of an extensive practice, but also collates the views and experience of others. He thus gives us a thorough review of the diseases of the throat up to the present time.

We are struck with the fact, that whilst Dr. Cohen states in a most positive manner the views and therapeutical practice which are the result of his own experience, due credit is always given to the opinions and experience of others. It would be impossible, in a general review, to mention all the excellencies of the book, and we must be content simply to note a few of the subjects.

The first chapters are devoted to the practice and principles of laryngoscopy. Plain and practical directions are given for the use of instruments; the difficulties which are met with are noticed, and the manner in which they may be overcome are clearly stated.

We next find the various affections of the pharynx and nasopharynx, embracing amongst others the sore throat of the exanthemata, of syphilis and of diphtheria, and a well-written chapter on adenoid vegetations of the pharynx. To the subject of diphtheria the author devotes forty-five pages, and it resembles more a monograph than a chapter in a text-book. On the vexed question as to the identity of croup and diphtheria, the author still holds to the old doctrine of each being an individual disease. He discusses the question in a logical, conscientious manner, giving due credit to all arguments, but still does not agree with the belief in the unity of the two diseases. He says, "the disease being due to an ordinary cause in the one instance, and to a specific cause in the other; the analogy being in the tissues and organs affected, and the difference in the mode of origin and in the systemic complication."

Eighty-eight pages are given to the affections of the nasal passages. Chronic coryza, or catarrh, is discussed in a scientific and thorough manner, and there is a complete absence of that clap-trap which so often disgraces the pages of medical literature. In spite of the steady opposition of the aurists, the author does not discard entirely the nasal or Weber douche in his treatment. He acknowledges the dangers incident to its use, but thinks they can be avoided with proper care. He concedes that in some cases otitis media has resulted from the use of the douche, but thinks that the same accident can arise from other methods of cleansing the post-nasal passages. In speaking of operating in cases of deflection of the septum from the median line, we miss a notice of the operation as proposed and practiced by Dr. A. J. Steele,¹ which is certainly far the best, for in this case there is no interference with the support which the septum gives to the tip of the nose, which certainly takes place in case the septum is partially removed, either by the knife or punch.

1 *Vide* ST. LOUIS COURIER OF MEDICINE, Vol. 1, p. 485.

The discussion of diseases of the larynx covers 256 pages. The subjects of acute and chronic laryngitis, œdema of the larynx, and croup are treated in a clear and admirable manner. Under the heading of ulcerative chronic laryngitis, the author takes issue with the wide-spread opinion, that the ulceration of the mucous membrane denotes *per se* a special or specific cause of inflammation. He says: "Many observers deny the possibility of ulceration in chronic catarrhal laryngitis. I have seen it often, and know no reason why an abundant proliferation of the cells, excited by catarrhal inflammation, cannot compress the nutrient vessels of the mucous membrane and cause ulceration the same as in cachectic inflammation."

We are glad to see the author's name enrolled in the ranks of those who cannot find in tubercle the cause of the varied morbid conditions of the throat, occurring in the course of pulmonary phthisis—the so-called laryngeal phthisis. Although the "tubercle theory" is championed by such names as Virchow and Rokitansky, followed by a number of lesser pathologists, the number of disbelievers is gradually increasing. The fact cannot be denied that even the most zealous and ardent advocates can point to but very few instances, amongst the thousands of cases observed, in which tubercle has been seen, and hence proven to exist. Clinical experience does not substantiate the pathological theories. Dr. Cohen says, "They have been recognized by Rokitansky, Virchow and other pathologists. Rindfleisch admits the possibility of an eruption of real miliary tubercle in the living membrane of the larynx, but intimates that the tubercles are so few and so rarely to be detected that they must be regarded as a very insignificant factor in the ulcerative process of laryngeal phthisis. Certainly the enlarged mucous glands of the laryngo-tracheal mucous membrane, hyperplastically distended with retained secretion of long continued catarrhal inflammation, must be regarded as a non-tuberculous element. The presence of these inflammatory products in the glands leads to their ulcerative destruction, and the confluence of several of these ulcers produces the racemose configuration generally considered characteristic of a tuberculous ulcer.

"In contrast with these views, recent observers, accustomed to use the laryngoscope, have claimed to detect tubercles in the

mucous membrane of the larynx early in the disease, and some of them have depicted laryngoscopic images of the deposits. If the preceding explanation be plausible, it can hardly be doubted that these nodules, so large as to be plainly visible, must have been enlarged mucous follicles. I cannot recall a case that presented this distinct studding of the larynx even in part."

The chapter on the surgical operations in the larynx, including the removal of growths, is excellent. We find the author agreeing with the conservative school, reserving operative measures to those cases in which the presence of the growth interferes with important functions.

In speaking of carcinoma of the larynx, we are surprised to find no mention made of the use of the iodide of potash, although certainly there is much evidence in its favor. In recommending trachotomy he seems to consider the relief of the dyspnoea to be the prime object. Statistics however have proven that the performance of tracheotomy, even where there is no dyspnoea, by giving a rest to the larynx, prolongs life, not months but years.

Space will not permit us to go further into details, and we can only say that the above book is excellent from beginning to end. As a text book on diseases of the throat it is by far the best that has ever been written, far surpassing the English and continental works on the same subjects. It is not simply of value to the specialist, but it is even more so to the general practitioner, for it is so practical and so clearly written that by its aid many cases, which have hitherto fallen to the specialists, can be successfully treated at home. It should be in the library of every progressive physician.

The woodcuts are good, and the binding and presswork fully sustain the reputation of the house of Wm. Wood & Co.

W. C. G.

FOOT-PRINTS OF VANISHED RACES IN THE MISSISSIPPI VALLEY. BY A. J. CONANT, A. M. *Published by Chancy R. Barns, St. Louis 1879. Price \$1 50.*

We are almost inclined to apologize to the readers of the *COURIER* for calling their attention to a book so decidedly non-medical; our only excuse is that professional men, as scientists and observers, are interested in the study of the relics and

monuments of a past and a crude civilization which abound in the Mississippi Valley and most especially in our own State; but, unfortunately, the book before us is not a scientific work; as the author himself tells us, (p. 121) "it has been my aim to present the subjects treated of in a form as attractive and popular as I was capable of;" this would be well did he not give us so many vague theories with regard to the origin, religion (p. 64) and civilization of a people still so questionable as our "Mound-Builders," and did he not lay so much stress upon such very doubtful and even exploded stories as the growth of a new variety of wheat from kernels of very ancient date, found in the Utah Mounds; (p. 68) moreover, the book is full of cullings from various authors, credited in a general way, and many pages are copied verbatim and duly credited.

This work of 122 pages has a very neat exterior and contains numerous though rather ordinary wood cuts; is a reprint, (p. 7) from a "memoir" which had already appeared in a work entitled "The Commonwealth of Missouri."

It opens with a general chapter upon the world-wide diffusion of the traces of vanished peoples, with some illustrations of "Man in the age of the Mammoth and Great Bear," and the "Solitary Cave Dwellers," which remind us of earlier volumes of Mitchell's Geography. After a review of the subject of Archaeology, chapter IV brings us to the Archaeological Monuments of Missouri, with which the author occupies several chapters; then come the "Cave Dwellers," those of the Kentucky caves and the caves in the Ozark Mountains, the latter of which Mr. Conant has himself explored—chapter VI.

Interesting to our readers are the statements with regard to the mounds in O'Fallon Park, and in Forest Park, which but few have probably noticed, the author in his flowery language says, "and when future generations shall throng the green groves and shady walks of that beautiful garden of their great city, these shall recall the fainting echoes of another race, whose homes once clustered upon the bank of that great river where a statelier—can we say happier—city stands to-day." He justly and severely censures the destruction of the Big Mound in 1869; it once stood on the corner of Mound street and Broadway, and should have been preserved as a monument

characteristic of our city, as it has given St. Louis the name of the "Mound City."

Rather a picturesque description of the swamp country of Southeast Missouri follows, which abounds in prehistoric monuments, and seems once to have been the seat of a vast population, with New Madrid as its centre. We can not agree with the author's statements as to the manner of interment found in the burial mounds in this region. He says: "it was customary to place the corpse upon the back, with the head toward to the centre of the mound," and "that three vessels were usually found with each individual." Our own investigations, which are corroborated by the most eminent observers, have shown that there is no regularity or method whatsoever in the manner of placing the corpse, and that pottery is by no means found with every skeleton. With many not a single vessel is found, whilst others are surrounded by six or eight vessels. But, much as we should like to, we can not enter into further details.

Chapter VII treats of the "Temple Mounds," which leads the author to speak at length of the immense group of mounds in the Illinois bottom opposite St. Louis, chief among which is the great Monk's Mound or Cahokia Mound, of which the author erroneously speaks as the "Great Mound at Cahokia"—a town much farther removed from the mound than East St. Louis. He justly says: "What a graceful thing it would be for the State or National Government to purchase it and decree its perpetual preservation!" It is the grandest monument of its kind known, and is mentioned as characteristic of the class spoken of as Temple Mounds.

It seems rather strange that even of this group of mounds opposite St. Louis, within a few miles of Mr. Conant's home, he should give us a description made by Mr. Brackenridge, at so ancient a date as 1811 and 1812, two and one-half pages verbatim, pp. 56, 57, 58, 59.

Chapter VIII treats of Garden Mounds; chapter IX, of miscellaneous works; chapter X, with many illustrations, of the interesting forms of pottery found in the mounds of Southeast Missouri; chapter XI of Crania; chapter XII closes the series, with some concluding observations. It treats of the supposed origin of the prehistoric races of America; the theory of spon-

taneous generation; the laws governing the migration of races. He concludes that our own country is probably the home of the Aztec civilization, and that the Indian races are of Asiatic origin.

G. J. E.

CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN. BY LOMBE ATTHILL, M. D., University Dublin, Master of the Rotunda Hospital, Dublin; Consulting Obstetric Surgeon of Adelaide Hospital, etc. Fifth Edition, Revised and Enlarged. 12 Mo., pp 342. *Lindsay & Blackiston, Philadelphia*, 1879. Price, \$2 25. (Through the St. Louis Book and News Company.)

The fact that the fifth edition of these lectures has been called for speaks favorably of the merits of this work.

When a new book on an old subject makes its appearance, the first questions that arise in the mind are: Was this book necessary? Have we not already valuable works that have said the last word on this subject?

These are relevant questions, but in answer it may be said that however complete the ponderous treatises may claim to be, their very completeness has rendered them at times abstruse and not easily comprehended by the student or busy practitioner.

In the book before us, Dr. Atthill has endeavored to supplement the practical points necessarily abridged in larger works, and to prepare a manual of easy reference, and a ready guide to the practical gynæcologist.

In this endeavor he has succeeded, and is, in general, a safe guide to follow. The author, avoiding all dogmatic pathological discussions, speaks from his own personal experience, and in this consists the originality and charm of his work.

We must, however, find fault with his method of examining patients: as he still clings *con amore* to the old fashioned Ferguson cylindrical speculum, ignoring the merits of Case's instrument and the admirable modifications of it by Nott, Thomas, Jackson, etc. He seldom uses the speculum of speculums, namely, that of Sims, to which, however, he is forced to have recourse in all serious operations on the uterus or vagina.

There seems to be an ungracious tendency among the English to ignore the progress of American gynæcology, which leads, without doubt, the gynæcology of the world.

For instance, Dr. Atthill speaks of Dr. Hodge's pessary, but devotes only a few lines to it in exclusion to pessaries of doubtful efficacy. Not a word is said of the valuable modifications of Albert Smith, of Thomas, Cutter, etc., all Americans as well as Hodge.

Of course, being a Briton, and slow to learn what takes place out of his island, in his *insularity* he has not yet heard of Dr. E. Gehrung's admirable anteversion pessary, now admitted to be the anteversion pessary, *par excellence*, and it may be said, the only one.

The next edition of our author may mend all these defects. Such as it is, we heartily recommend this work to practical men—especially can we commend its valuable and suggestive chapters on Uterine Therapeutics, and on the treatment of Leucorrhœa and Vaginitis.

In the treatment of Endometritis by strong nitric acid applied to the fundus of the uterus, we confess a lesser enthusiasm than that of the author, and fear that future reports of disasters by this heroic treatment will cool off the hopes of the author as to its efficacy.

The chapter on Ovarian Cystic Disease, its symptoms, diagnosis and treatment, together with a few words on ovariectomy, is the best epitome written on this subject, which the author, with great clearness and precision, condenses in less than twenty pages.

This work is, moreover, fully illustrated by reports of cases from the author's own practice, and by many fine wood cuts.

The American publishers have done well, not only in introducing the above work in this country; but also in doing it so acceptably. We can safely predict for it a rapid sale.

L. Ch. B.

A CLINICAL TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. BY M. ROSENTHAL, Professor of Diseases of the Nervous System at Vienna; with a Preface by Professor Charcot. Translated from the Author's revised and enlarged edition by L. Putzel, M. D., Physician to the Class for Nervous Diseases, Bellevue Hospital, Out-door Department, and Pathologist to the Lunatic Asylum, B. I. 2 vols. *New York.* Wm. Wood & Co. 1879.

This admirable work constitutes one of the last publications of Wood's Library of Standard Medical Authors.

It must needs be a task of supererogation to criticise a work

on nervous diseases, which is highly complimented by the great master, Charcot, who thus refers to Rosenthal's production, in his preface to the first edition of the American translation: "The erudition displayed in Dr. Rosenthal's treatise does not recognize the boundaries of country, though it is but natural that the author should chiefly refer to the works of his compatriots."

Professor Charcot, in another part of his preface, says: "I was acquainted with the present treatise long before a French translation was contemplated, and mindful of the lessons it has rendered me in my teachings, I have accepted, with pleasure, the task of presenting it to its new circle of readers."

The treatise is essentially clinical in its scope, and presents many features which are original and most entertaining. We have not experienced such unfeigned pleasure in reading a work on nervous diseases, since first we indulged in the luxury of a perusal of Trousseau's classic descriptions of neurotic affectations in his great work on Clinical Medicine. Rosenthal's delineations are concise and striking, and at the same time exhaustive. All the recent views and discoveries are discussed in a masterly manner, evincing a practical familiarity with neurological literature which entitles the author to the highest possible credit for his research and erudition, and places him in the foremost rank of authorship, originality, and eminence. Medical electricity and hydro-therapeutics receive especial attention, and the suggestions in this direction afford an ample field for practical observation and experiment by all interested in the treatment of nervous diseases. His views in this respect are entitled to our highest regard and consideration, based as they are, not on mere empiricism, but on careful study, personal investigation and the most recent scientific developments. Take it all in all, this work *is the best we have ever seen* on nervous diseases, not excepting the admirable productions of Charcot in France, and Hammond in America. It is the most valuable, concise and readable treatise on these affections with which we are acquainted in the whole range of medical literature. It contains, in the most succinct form, the greatest amount of information, of the very latest date, surpassing any hitherto published work. To the practitioner of medicine it is invaluable, as in the shortest possible manner, in a most readable style—one which is as laconic as it is incisive and clear—it presents the most

valuable and complete explanation of these subjects. To the specialist's library it is a most important addition, and contains recent and original views with which he cannot afford to dispense. We cannot too emphatically repeat what we have said before, that Rosenthal's Treatise on Nervous Diseases is the best contribution to the literature of the subject we have as yet had the pleasure of reading.

J. K. B.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. BY GEORGE HENRY FOX, M. D., Professor of Dermatology, Starling Medical College; Surgeon to the New York Dispensary, etc. *New York: E. B. Treat, 1879.* Parts III and IV.

Part III of these excellent colored photographs contains portraits of Fibroma, Varicella, Zoster (pectoralis et lumbalis), and Eczema (universale). In part IV are presented Leucoderma, Chromophytosis, Favus (capitis et corporis), and Eczema (cruris). As we have on former occasions expressed our appreciation of Dr. Fox's splendid work, it is only necessary to say now that the present issues are fully equal to those previously published. The identity of name has given rise to some confusion in regard to the plates of the late Dr. Tilbury Fox and Dr. G. H. Fox, of New York, whose atlas we are now noticing. We believe that we are safe in saying that the illustrations of skin diseases by our countryman are much superior to those of the English dermatologist.

W. A. H.

THE SOUTH-EAST MISSOURI MEDICAL SOCIETY.

As announced in the last number of the *COURIER*, the S. E. Mo. Med. Association met at Jackson, Cape Girardeau County, Tuesday, November 4th, continuing in session three days, with the president, Dr. A. E. Simpson, in the chair.

After prayer by Rev. T. A. Bowman, the president read an able address, which included many matters of interest to the profession.

The minutes were read and approved, and the courtesies of the society extended to members of the press, the bar and pulpit.

Petitions for membership were received from Drs. Gupton, of Morley; Harris, of Cape Girardeau; Prichett, of Dexter; Beuckemann, of Jackson; Valley, of Perry; and from Dr. Baldridge, all of whom, being recommended by the committee, were duly elected.

Dr. Mann, in a very neat speech, called the attention of the society to the importance of "unity of action."

Drs. Henderson and Rowe reported that, as delegates to the State Medical Association, which met at Columbia, in May, they had been well received, and the time devoted to it was profitably spent.

The reports of the treasurer and corresponding secretary were received and approved.

Interesting and instructive papers were read, on Diseases of the Ear, by Dr. Strong; Hog and Hominy, by Dr. Harris; Displacements of the Uterus, by Dr. Cline; On the Progress of Surgery, by Dr. Bond; Rotheln, by Dr. Henderson; Pneumonia, by Dr. Frazier; and Inflammation, by Dr. Rider. Animated discussions followed the delivery of each.

The County Councilors reported as follows: For St. Genevieve, Dr. Strong; for Perry, Dr. Vineyard—accompanied by a poem, by Dr. Cline; for Scott, Dr. Porterfield; for Mississippi, Dr. Rowe; for Bollinger, Dr. Miller; for Cape Girardeau, Dr. Harris—closing with an appropriate tribute to the memory of the late Dr. J. S. Robb.

Interesting cases were exhibited: One by Dr. Peterson, of cerebral lesion, with an arrest of development of the opposite side of the body; a case of curvature of the spine, with attendant dorsal abscesses, and a case of osteo-sarcoma of the ilium, by Dr. Cannon.

Discussions were had on the treatment of puerperal convulsions, and of diphtheria.

On motion of Dr. Cannon, the society heartily endorsed the action of some six medical colleges, which were endeavoring to elevate the standard of medical education by insisting upon a preliminary examination and a three years' course of study as prerequisites to graduation, and resolved that the members of the society should not receive students unless they agreed to attend those colleges that insist upon such requirements.

The president announced the following appointments: The

County Councilors continued, with the addition of Dr. Prichett, for Stoddard County. Reporters—on Otology, Dr. Strong; on State Medicine and Hygiene, Dr. Cannon; on Expert Testimony, Dr. Bond; on Advanced Medical Education, Dr. Harris; The Relation of Alcohol to the Public and the Profession, Dr. Mann; New Remedies, Dr. Haw; Conduct of Consulting Physicians, Dr. Rider; Antiseptics in Surgery, Dr. Gupton; Diphtheria, Dr. Beuckemann; Tumors, Dr. Grimstead; and Dr. Valley, on a subject of his own choosing.

Standing Committees: On Publication, Drs. Cannon, Wilson and Harris; on Arrangements, Drs. Frazier, Porterfield and Gupton; on Programme, Drs. Cannon, Bondurant and Frazier. A special committee was appointed to revise the constitution and by-laws, consisting of Drs. Harris, Wilson and Vineyard.

After the passage of the usual resolutions of thanks to the local profession, the press, and friends, the society adjourned to meet at Commerce, Scott Co., May 4, 1880.

E. A. SIMPSON, M. D., *President*.

A. A. BONDURANT, M. D., *Secretary*.

In addition to the regular business proceedings of the society, the members were socially entertained at a right royal banquet held on the evening of the third day. After a bountiful supper, toasts were in order, to the edification and amusement of all. Many had not the opportunity of talking, but all were afforded the privilege of dancing—the ladies having been mustered into service—and so the time slipped merrily by 'till the wee sma hours.

A private reception was also tendered the members of the society, on the evening of the second day, by Dr. J. W. Cannon, of Jackson, which was brilliant and social in the extreme.

THE TRI-STATE—INDIANA, ILLINOIS AND KENTUCKY—MEDICAL SOCIETY met at Evansville, Ind., in its fifth annual session, Nov. 4, 5 and 6, and was welcomed heartily by the profession and citizens. Dr. Ireland efficiently occupied the chair.

Judge Parret delivered an eloquent oration of welcome. Dr. Weist, of Indiana, fittingly welcomed the Kentucky and Illinois members. Dr. Owen made a satisfactory report from the com-

mittee of arrangements. The model secretary, Dr. Burton, followed with his official report, and Dr. Beach, the treasurer showed a handsome balance on hand.

Drs. Mumford and Hibbard read papers on the treatment of Phthisis, which called forth a very lively discussion.

The president's address on *Gleanings from the History of Medicine*, delivered in the evening, before the general public, was an able and learned production. Dr. Williams followed with a public lecture on the *Drink Muddle*, full of humor, and of sound practical advice as to the methods of modifying the baneful habit of drink, recommending a strict licensing control of the traffic.

On the morning of the second day Dr. Compton offered a *resume* of our existing knowledge of epidemic scarlatina. Dr. Rumbold followed with *Injection of Carbolic Acid in the Treatment of Pharyngeal Tumors*.

Dr. Stevens' paper was on *State Medicine*; Dr. Gardner's, on *Microscopic Investigations in Milk Sickness*.

Dr. Holloway emphasized another symptom of *Perinephritic Abscess* as being a lessening of the space between the ribs and ilium of the affected side; often the bones are in contact; inclination of the body toward that side, with flexure of the thigh, occur.

Dr. Weist reported two cases of *Fracture of the Spine*, successfully treated with the plaster jacket. Dr. Walker offered an excellent paper on *Syphilitic Neuralgia*. Dr. Higgins, of St. Louis County, Mo., advocated non-humanized virus for its great protective power, and made still more so by introduction at three points instead of one.

Dr. E. Williams gave an able essay on *Symptomatology of Optic Neuritis*, telling the value of the *Ophthalmoscope* in diagnosing inter-cerebral trouble. Dr. Singleton, chairman of the section on obstetrics, reported but little progress in that department, said that ergot was good, the forceps bad—those employing them “induct innocent infants into the world to the music of clanging steel” (!)

Dr. John Green, of St. Louis, followed with an able and strictly scientific essay on the causes, prevention and treatment of *strabismus*. Dr. Borek, also of St. Louis, offered a lengthy

paper on ovarian tumors, with his own peculiar method of treatment.—Fully discussed by the society. Dr. Pierson followed on Epilepsy, and Dr. Cheatham on the Audiphone. Dr. Buck told what he knew on Electricity in the treatment of Uterine Diseases.

Maternal Impressions Affecting the Fœtus in Utero, was illustrated by Dr. Furman in the shape of a pig, a monstrosity produced by the impression made on the nervous organization of the sow mother by a passing elephant (!) Dr. Vance gave the Best Manner of Reducing the Irritability of the Bladder and Urethra after Lithotrity. Dr. Stone followed with the Management of Fractures in the Insane. Dr. Briggs gave the surgical treatment of Intestinal Obstruction. Gynecology was enlarged upon by Dr. Dudley, and Tracheotomy by Dr. Noonan.

One of the most enjoyable treats was an evening lecture by Dr. Gregory, of St. Louis, on Knowledge with Understanding Essential to Action. A microscopical *soirée* followed, and after that a reception and dance at the residence of Dr. Bacon.

On the morning of the third day, Dr. Gatch spoke on Sanitary Hygiene, urging the establishment of a State Board of Health for Indiana. Dr. Austin ably seconded the suggestions. Dr. Walker gave hints on the use and abuse of the obstetric-forceps.

The officers elect, are: President, Dr. H. B. Buck; Vice-presidents, Drs. Thompson and Mumford; Secretary, Dr. Burton; Treasurer, Dr. Beard.

Next place of meeting, Louisville, on the first Tuesday in October, 1880.

The physicians of Evansville gave an elaborate banquet to their visiting brethren, followed by dancing.

The session, taken all in all, was a success, though not as fully attended as had been hoped, but about 150 being present. The papers were good and the discussions brief. The general profession would be benefitted if the Transactions could be given them at once and promptly, and not be dependant upon the monthly issue of a medical journal to dole them out.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Dr. E. Montgomery, in the Chair.

THE CONNECTION BETWEEN ERYSIPELAS, CROUP AND DIPHTHERIA.

Dr. Maughs: I never considered that there was any relation between membranous croup and diphtheria; croup being a local disease, accompanied with exudation of plastic lymph upon the mucous membrane, non-contagious and non-infectious. Diphtheria is a constitutional disease,* contagious to a very high degree. The exudation found in diphtheria is a simple exudation under the sub-mucous tissue, the result of blood-poisoning. Diphtheria is nearly always characterized by a swelling of the lymphatic glands, and I am disposed to think that it is allied to putrid, anginous forms of scarlet fever and sometimes to small-pox—that it is simply an engrafted condition, the result of blood-poisoning. But between erysipelas and diphtheria, I have no doubt there is a very immediate connection—that they are sometimes one and the same disease.

Dr. Lemoine: My observation would lead me to exactly the same views as those announced by Dr. Maughs. I remember in a case of Dr. Hodgen's, supposed by him† to be a case of diphtheria, in which the membrane extracted from the trachea of the patient was very well formed, tenacious, and very different from the exudation of diphtheria.‡ I should have said that the case was one of membranous croup,§ following diphtheria, and yet the subject was one in which I would not have expected membranous croup. I might expect diphtheria to follow membranous croup, but not membranous croup to follow diphtheria.

Dr. Mudd: The case referred to by Dr. Lemoine was one in which the diphtheritic condition was well marked; and it is not an infrequent occurrence to have the membrane, as it appears in the trachea, below the vocal chords—below the larynx, assume the character of a membranous exudation, such as you

have in croup. In proof that that was a case of diphtheria, a little child in the same family was similarly taken sick, and the disease was limited to the nasal passages and the pharynx, and the child died simply of the poisoning from the diphtheritic trouble in the nasal cavities. That there is a connection between erysipelas and diphtheria is, I believe, pretty generally admitted. We can go still farther, and say there is a distinct connection between septicæmia, pyæmia and acute inflammations which follow all wounds, and even in those which are not distinct, there is still that interchangeability between the one and the other; and, according to the conditions of the atmosphere, we find diphtheria, or erysipelas, and we also find bad inflammations from wounds. I think the tendency of surgeons and pathologists of the day is to regard these different degrees of fevers following wounds as only differing in degree of poison, not as a difference in the character of the inflammation.

Dr. Montgomery: I have a very strong opinion about the connection between croup and diphtheria. Able men all over the world are taking the opposite view—that croup and diphtheria are entirely distinct. The two diseases are entirely different in their commencement, in their progress and in their termination. Croup is a disease of childhood, which comes on suddenly, and generally in the night-time. Diphtheria does not come on suddenly; there is generally six or eight days of incubation. There is an intermission in croup; we notice that one day it will be better, the next day worse. In diphtheria, so far as I have seen, there is none of this periodicity. Another difference is, that we have none of that swelling of the submaxillary glands and tissues in croup that we have in diphtheria. In the latter, there is a disagreeable odor to the breath. One is contagious—eminently so, and the other is not. I have seen dozens of cases in which I had no doubt of diphtheria being communicated from the child to the nurse and physician. The sequelæ are different; paralysis follows diphtheria, but never croup. I cannot understand how men of intelligence can hold the views that Jenner, and Johnson of London, are now taking on this subject; the one believing that the two diseases differ only pathologically, the other that they differ only microscopically. Some have called the disease, in common, larygo—pharyngitis. Diphtheria may extend over and around the arches of the palate, and uvula, and gums; even in the vagina and in the

anus its manifestations are seen, which is never the case in true croup. I never saw croup communicated, but I have seen persons of all ages take diphtheria. Two persons in this city took it very decidedly from nursing a convalescent child. I know of numerous other instances.

Between erysipelas and diphtheria, there is some connection, but there is a great difference between diphtheritic and traumatic erysipelas. Although I have the greatest admiration for the learning and talents and intellects of Jenner, Johnson and others who take similar views, yet we need not be like the eminent professor who said he would rather be wrong with Galen than right with anybody else.

Dr. Ford: I would suggest that there have been cases where the surgeon has applied his mouth directly to the tracheal wound and inspired the false membrane and become infected by the diphtheric poison. Such a case is detailed by Erickson, and a case of the kind occurred in this city after tracheotomy for diphtheria.

Dr. Maughs: I am glad to find the views of the members of the society coinciding so closely with my own, as these gentlemen are men of practical experience. I remember some children who had always violent attacks of membranous croup whenever the wind was in the East.

There is a distinct and separate difference in the cough in the two diseases. In membranous croup it is ringing, and not at all as in diphtheria. The paralysis is a distinctive condition. I have never seen it follow croup, but it is a common thing for it to follow diphtheria two or three weeks after the child has recovered.

Dr. Lemoine: There is one important point that has come under my observation. It is as to the time of the local manifestations. In pseudo-membranous croup they are almost entirely confined to the trachea and larynx, especially the trachea. In cases of inflammation of the trachea in diphtheria, it has always been after the other local manifestations.

THE PROPRIETY OF OPERATING FOR FISTULA IN ANO IN PHTHISICAL CASES.

Dr. Steele: I believe Dr. Glasgow wishes to add something to the position in which he seemed to be isolated at the last meeting.

Dr. Glasgow: We were discussing the propriety of operating for fistula in ano in phthisical cases. I was arguing against the operation in cases in which the disease was active in the lungs, and contended that the healing of the fistula in quiescent cases would often develop a chronic case into an acute one. I stood pretty much alone in that position. Dr. Prewitt, as a surgeon, seemed to think me old-fashioned in my notions, and my esteemed friend, Dr. Hardaway, denounced me as heretical, which position he, as a dermatologist, was bound to assume, for it would not be profitable for him to admit the truth of the old-fashioned doctrine of derivative action. To show that I am orthodox, and that my views are held by distinguished authorities, among which none will dispute that of James Edward Pollock, I will quote what he says in *The Elements of Prognosis in Consumption*: "The coincidence of abscess by the side of the rectum with phthisis, has been regarded by most authorities as conducive to prolongation of the tubercular disease. The observations which we have been able to make with accuracy confirm this opinion. It is a matter of observation that irritation of a portion of the gastro-intestinal canal is often manifested at the extremities of the mucous tract. Of this, aphthæ coincident in the mouth and fauces, and also at the anus, and irritation of the nostrils in children, the subject of intestinal worms, are familiar examples. The exciting cause of fistula in ano may be thus accounted for. These cases of phthisis with fistula are certainly not ordinarily accompanied by diarrhœa, and the discharge from the neighborhood of the rectum is, therefore, not due to extension of irritation from the ileum and cæcum. More probably it is due to the cause alluded to, and is probably a reflection at the extremity of the mucous tract of an irritation existing at its other extremity.

"The result of such cases as we have witnessed is that the operation is not ordinarily successful in healing the fistula; that if successful for a time, the discharge almost invariably returns; that the phthisical symptoms always increase after the healing of the sinus; and that the discharge itself is a condition favorable to the quiescence of the irritation in the lung. In very frequent instances, the aggravation of all the symptoms of phthisis has occurred almost immediately after the suppression of the discharge.

"The converse is also true. The long continuance of fistula in cases of consumption has been found very constantly where the lung affection is most prolonged, and presents the features so often alluded to as indicating very chronic consumption."

I think that Dr. Pollock in this extract (and there is much more of the same tenor) fully substantiates the views that I expressed, which were, that in cases in which phthisis had shown any signs of development, the operation for fistula should not be performed; that cases of phthisis with fistula belonged to the chronic and prolonged forms, and that the healing of the fistula would simply serve to stir up the disease into activity, and transform a chronic case into one of acute character.

Dr. Briggs : You said that the surgeons thought it an old-fashioned view. I can testify that they held that view when I was a student. Of this I am quite sure, but that they had receded from this view, I did not know. I supposed it was considered an observed fact.

Dr. Prewett : I know that Mr. Bryant says that he does not consider phthisis as a counter indication of the operation unless it is advanced. As Pollock says, if you operate on fistula in cases of advanced phthisis, it will not heal, so that you gain nothing by the operation. It is difficult to understand why, in a case of phthisis, where the patient is wearing away by the breaking down of lung tissue and other exhausting processes, how an additional drain on the system in the way of a purulent discharge can be of benefit.

Dr. Kingsley : Van Buren almost always operates in these cases. In cases of advanced phthisis, of course he will not. He says that in some cases he is in the habit of establishing the old-fashioned issue, and I do not know but that in some cases it is of service. There is one thing certain; take for example those old ulcers of the leg; just as soon as a new ulcer manifests itself, the old ulcer will get well; as soon as you have a manifestation a few inches below or above the old ulcer, it heals rapidly and the new one increases in size. I would ask Dr. Glasgow whether he hesitates to cure up purulent catarrhal affections of the nasal cavities in phthisical cases?

Dr. Glasgow : In cases of active phthisis, I may say yes, for it is useless to attempt it; even if the discharge is checked, it

will soon return. I never meddle with such cases unless it gives great discomfort to the patient. In cases of checked phthisis I would hesitate long about attempting to arrest entirely a purulent discharge from any organ. In persons of strumous habit, in whom no disease in the lung has yet developed, I should attempt to cure them, hoping by nutritive diet and tonics to overcome the defective nutrition which is at the root of the evil.

Dr. Steele: I am hardly inclined to believe that the fistula acts as a derivative in a case so far removed from the lungs as the anus would be. I know a doctor in New York who has treated consumption for years by putting a seton just below the clavicle,—he does not put it at an opposite extreme of the body from the disease, and I can hardly believe that a fistula can be of any benefit to a patient. If the discharge has lasted long, it has become a law to that system, and to check it suddenly may be a shock driving the irritation to some other part—to the already weakened lung. In a patient who has had chronic ulcers, if you cure them suddenly it produces a marked effect upon the nervous system. I had a case of an old lady whose legs were one mass of old varicose ulcers. Her physician had said years before, “Never have those cured, or it will certainly kill you.” By persevering treatment I cured them, but very soon severe nervous symptoms manifested themselves—brain trouble and aberration of the mind. I gave her a tonic, operated on her bowels, attended to her kidneys, etc.

Dr. Prewitt: I have cured a great many ulcers of the legs and I have never met with ill effects. I give these patients invariably saline laxatives with quinine and iron, and I aim to prevent any plethora in that way. Now, in reference to derivative effects, I have a patient who has had repeated hæmorrhages from the lungs. I first saw her about two years ago, and I found her with a most harassing cough. There was extreme tenderness all over the left chest, but I could detect nothing by physical examination. There was no dullness, there was no marked tubular breathing, and I thought at the time there was milliary tuberculosis and did not expect her to get up again. She rallied and was able to go out. She has still a cough, she has unquestionably trouble of the lungs, but she has menorrhagia, and the flow seems to have relieved her lungs.

Dr. C. E. Briggs, in the Chair.

ADENOID TUMOR OF THE NASO-PHARYNX.

Dr. Glasgow: I would like to draw the attention of the society to a class of cases concerning which very little has been written, and which are often overlooked in practice. I refer to the adenoid tumors of the naso-pharynx. I have had two such cases—one last winter, and one I am treating now. I believe they occur much more frequently than is thought. They are seldom looked for, many ascribing the symptoms to other causes. “Catarrh” is the unfortunate name given to all discharges from the nasal passages, and, as a post-nasal discharge is the prominent symptom, these cases are generally dubbed “Catarrh,” and treated accordingly. The disease consists in a hypertrophy of the glandular or adenoid tissue existing in the naso-pharyngeal space, of which the pharyngeal tonsil is an example. The growth of the adenoid tissue may be slight, existing simply as tit-like projections from the surface of a hypertrophied membrane, or it may be so great as to partially block up the choanæ, and thus obstruct nasal respiration. At other times, it encroaches on the mouth of the eustachian tube, and causes more or less loss of hearing. The symptom that is generally first complained of, is obstruction in the nostrils, and this is accompanied by a discharge which trickles downwards into the pharynx, the discharge resembling that of chronic coryza. At other times, a sense of fullness is experienced, with more or less pain, often referred to frontal region. A peculiar tremulous nasal tone to the voice becomes marked when the growth obstructs the choanæ, and this is especially marked in children.

The only certain method of diagnosis is the rhinoscopic mirror, by which we at once see the altered condition of the parts. In some cases, the finger will tell us that an abnormal growth is present; it gives a soft, velvety feeling to the touch, which has been compared to a bunch of earth-worms.

THE TREATMENT consists in the removal of the hypertrophied adenoid tissue. Meyer has proposed a curette, which he introduces through the nostrils and by scraping, removes them. This causes considerable pain, and often great hæmorrhage. The galvano-cautery has also been recommended, and has proved

effectual in skillful hands. Caustics have also been used. In the cases that I have had, I crushed the granulations with a forceps introduced from the mouth, and afterwards cauterized with silver and chromic acid. There is less hæmorrhage than when the curette is used. The case that I operated upon last year passed through the winter without any trouble. I saw the patient a few days ago, and he considers himself well. He had had great obstruction in the nostrils, with a marked nasal voice and a constant discharge. It had existed some five years, and had produced a peculiar deformity of the face, which sometimes occurs in these cases from the obstruction to nasal respiration.

Dr. Briggs: How many lines does this hypertrophy extend beyond the normal level?

Dr. Glasgow: It may extend downwards to a level with the soft palate, but the hypertrophy is usually perhaps a twelfth to to a quarter of an inch in thickness. Sometimes it amounts to simply a thickening of the membrane with tit-like projections. The cases are not rare, but they are rarely diagnosed, owing to insufficient examination. As to whether these cases depend upon scrofula: In one of my cases, there is such a history, with a family pre-disposition to throat disease. In the other, there is not the slightest scrofula taint, as far as I can discover. The prognosis is good when proper attention and treatment is given. When the granulation or growth is destroyed, there is little tendency to return. It acts very much like a hypertrophied tonsil which has been incised, for it is the same kind of tissue.

Dr. Todd: In reference to these cases, I will say that it is often very difficult to make an examination with the mirror. We can, however, make a thorough examination by using the forefinger. By a little knack, we can slip the finger behind the palate and explore the whole naso-pharyngeal region. In those of a scrofulous habit, we often find about these parts a hypertrophied condition of the membrane, and, indeed, as Dr. Glasgow has said, there is a normal collection of glandular tissue called the pharyngeal tonsil. As we so often see an enlargement of the tonsils in scrofulous persons, so we may naturally expect to find the pharyngeal tonsil equally hypertrophied. There is too little attention given to the study of the anatomy

to the post-nasal space. If more frequent examinations were made, I think we should find many cases where this tissue is present, for it is not an abnormal, but an hypertrophy of the normal tissue.

Dr. Steele: Then it may be considered a hypertrophy, not a tumor.

Dr. Prewett: I would ask Dr. Glasgow whether such growth could be mistaken for a polypus?

Dr. Glasgow: Yes, if we simply use the finger as a means of diagnosis, that is possible, for it has the same soft, velvety feeling. It may be mistaken for a broad-based polypus. The use of the rhinoscopic mirror will, however, at once distinguish between the two conditions.

Dr. Briggs: It must be difficult in some cases to make use of the rhinoscopic mirror, there is such a variation in the conformation of the fauces in different persons.

Dr. Glasgow: A great deal depends on the handling of the mirror. Some cases are very easy to examine, and in other cases it is difficult and requires great patience to get a view of the parts. I have seen very few cases where I could not at least get a momentary glance at the parts.

DISEASES OF THE MOUTH.

Dr. Todd opened the discussion of the subject by exhibiting and describing a necrosed bone taken some four years ago from the upper jaw of a girl about seven years of age; also a cast of the roof of the mouth, with alveolar border and teeth, made recently. The three pieces of bone exhibited represent the whole horizontal process and anterior alveolar arch of both *superior maxillaries*, and what appears to be one of the palate bones. They were removed in two operations. The patient presented also a large median perforation of the palate bone and partial loss of the soft palate. The cast demonstrates the labors of nature at remedying the mischief: The arch of the jaw is fairly preserved, it being, of course, markedly smaller anteriorly than that of the under jaw.

Dr. Prewitt: These cases of syphilis, such as was Dr. Todd's, offer the greatest hope of cure. It is astonishing the number of cases of syphilis I meet with in which I cannot get any history of syphilis. But I treat the lesions regardless of the history. I make the diagnosis upon the lesions present. For

instance, I saw a woman to-day whom I treated last year for an ulcer of the leg, which I remember regarding as syphilitic. About two inches below the knee was what I supposed to be a gummy tumor. I placed her upon iodide of potash with excellent result, yet I have never been able to get out of her any syphilitic history. Some years ago she had sore throat and offensive breath, but there was no breaking out on the skin. Still, I was satisfied she was syphilitic.

Dr. Todd: I based the diagnosis in my case, just described, entirely on the appearances.

Dr. Prewitt: I have ceased to be guided solely by the history. If there are other reasons for believing the case syphilitic, I take it for granted it is so. I have met with several such cases. One was that of a young woman, married for two years. In the back part of the pharynx were two ulcers, rather deep, with elevated edges-thickened ulcers. I suspected syphilis, and found upon the cervix uteri an ulceration that looked suspiciously like either a syphilitic ulcer or an epithelioma, yet I could obtain, from neither the husband nor wife, any history of syphilis. I cauterized the ulcer with nitric acid, and it healed very nicely. But the coincidence of the ulcer upon the cervix, and those in the posterior wall of the pharynx, led me to suspect it was syphilitic. There was no strumous appearance about her, yet she might have had some syphilitic taint congenitally.

Dr. Briggs: Syphilis would not be likely to show itself in the cervix uteri.

CANCERUM ORIS.

Dr. Kingsley: In regard to the subject of diseases of the mouth, which is being considered to-night, a very great deal can be said. But since the subject of ulcers has been brought up, I will narrate a case distinctly related to this subject. A child five years of age was brought to my clinic at St. John's Hospital, with cancerum oris. It had been for some months at an orphan asylum, where it had become anæmic and somewhat emaciated. The mother stated that on visiting the child she scarcely recognized it, in consequence of the great change that had taken place, it having been several weeks since she had seen it. I will remark that this disease is more frequently observed in asylums for children than in private practice.

The ulcer was situated in the cheek adjacent to the angle of

the mouth, which is the most frequent site. At the time I saw it, there was an opening through the cheek quite large enough to admit the thumb. Saliva was running from the mouth quite freely and constantly. The discharge from the ulcer had the characteristic offensive odor. The cheek and neck were considerably swollen. Conversation, as well as deglutition, was performed with difficulty. The teeth were loose in the lower jaw on the affected side, in consequence of the involvement of the gum, and the progressing necrosis of the alveolar process.

The child had been treated by some three physicians, as I learned from the mother, all of whom gave an unfavorable prognosis. The mother stated that the measures they had resorted to had been severe, as they had burned the sore with powerful acids and caustics.

I, like the others, gave an unfavorable prognosis, but promised to do all I could. Instead of resorting to those harsh measures which have been used so long that physicians have begun to think there is no other treatment, I pursued a mild course. I ordered the mouth washed three times a day with a solution of carbolic acid in water (one part to forty), and lint wetted with the same solution kept in the opening in the interval. Good, nourishing liquid food, milk, cream, eggs, etc., together with tincture of calumba, and iron, were ordered. The disease seemed to remain stationary for a time. After a while, however, it began to improve in appearance, and the fetid discharge to diminish in quantity. Eventually the reparative process began, and the opening contracted day by day until it closed, after some three months persistent treatment. The teeth in the lower jaw on the affected side came out and I removed the necrosed alveolar process in a single piece. The child is now quite well and healthy, and there is much less deformity than we would suppose. In the treatment of this case, due credit must be given to the mother, who devoted herself to the child and made every sacrifice possible for its welfare and comfort. She followed all directions given her, explicitly. What perhaps is the most interesting in connection with this case, is the fact that it recovered by the use of mild applications, which are certainly preferable to the more severe and barbarous practices resorted to by the older practitioners.

Dr. Prewitt: Such cases most frequently follow the exanthe-

mata. The worse case I ever saw was in a child that had had the measles. There was an ulceration upon the left cheek, with a dark-red patch upon the outside, which soon perforated. I tried different applications—nitric acid, pure carbolic acid, etc., but it continued to progress, the teeth fell out, and the whole cheek loosened from the superior maxilla. Finally, cancrum oris began to form in the right cheek, in its thickness at the outside of the mucous membrane. An ulcer soon formed, almost perforating the cheek. Before the child died, the whole superior maxilla on both sides was denuded. The gangrene on one side extended until it took in the upper part of the cheek. The child died with symptoms of septic poisoning. I ordered tonics and good diet, but the nurses did not persist; they did not give the quinine and iron as promptly as they ought. I could not make them understand that it was essential. In public institutions they often think if they give a dose of medicine about three times a day, it is all that is necessary. The cancrum oris was unquestionably due to the bad condition of the child. Acids did not have any effect in checking the ulceration, and I do not think any sort of local application would have arrested it.

Dr. Kingsley: Probably not. The recovery of my child was exceptional. All credit to the mother, who devoting herself day and night to the care and comfort of her child, kept it absolutely clean, changed the dressing as directed, and gave it the best food obtainable.

STOMATITIS MATERNA.

Dr. Prewitt: There is a condition of the mouth known as stomatitis materna. I have such a case now. The woman is in about the eighth month of pregnancy. She first complained of a catarrhal condition of the throat. The mucous membrane looked red, and I cauterized it with a solution of nitrate of silver, ten or fifteen grains to the ounce. But upon the mucous membrane of the cheek there were merely red patches, scarcely amounting to ulceration. All over the tongue the epithelium seemed just about abraded, and she complained that whatever she took into her mouth hurt her tongue, which, as well as the inside of the cheeks, is dotted. This condition of the mucous membrane may extend into the stomach and bowels, and occasionally proves fatal. The patient, of course, has indigestion.

There is a condition of ulcerated stomatitis that must not be mistaken for cancrum oris, in which we may have a very plain ulceration, and in the same class of patients—badly nourished and badly fed, debilitated children, in whom ulceration commences on the mucous membrane and takes the phagedenic character.

SELECTIONS.

EXAMINATION OF THE GENITALIA AFTER LABOR— TREATMENT OF LACERATED PERINEUM.

BY ALBERT H. SMITH, M. D.

Some portion of the placenta may remain attached to the internal surface of the uterus, and, becoming putrescent, give rise to hæmorrhage, for we know that anything remaining in the uterine cavity after the expulsion of the after-birth acts as a splint to keep the uterus contracted. Should you, under such circumstances, insert your hand into the uterus, you will discover the existence of hæmorrhage in the shape of coagula, which should be first removed, and then the cavity of the womb should be thoroughly cleansed with antiseptic washes.

If you meet with a tendency to flooding after labor, and if, upon careful examination you find the uterus firm and contracted and the cervical and vaginal surfaces presenting no loss of continuity, you should suspect the presence of "placenta succenturia" and at once remove it.

In primiparæ, always make it a duty to make a thorough ocular examination of the parts after the placenta has been expelled, and in the case of a multipara do not hesitate to go through with the same process if you have the slightest reason to suspect the existence of any such lesions, for fissures of the perinæum and vagina of a very serious character may otherwise escape notice.

In its normal state it is a very easy matter to detect the difference between a smooth and a lacerated vaginal surface; but where, after labor, the vagina is puffed up and œdematous, it

may be very hard to recognize the existence of a tear by the sensation which it presents to the touch. Hence, you should always have the parts illuminated by the light of a candle or by gaslight. Then, again, for the thorough detection of these rents and fissures, you ought, in every instance, to introduce the first and second fingers of the left hand into the rectum and draw it forward and pouch it out and so expose the posterior vaginal wall laterally as far as the fossa at the tuberosity of the ischium, bringing the pouched surface well out beyond the vulva. This you can easily do, and in this way calling the eyes to the assistance of the fingers, you can at once detect the presence of any lesion, if such exist, which requires your attention. At the same time you may see to it that no hæmorrhoid or fissure of the rectum be allowed to remain unattended to. This examination must be always made in the case of a primipara.

Where a laceration of the vagina thus discovered is too slight to demand operative interference, all that is necessary will be to wash the parts out thoroughly with a strong disinfectant solution.

I remember very well my first examination of the vagina after labor, and how utterly astonished I was at the appearance of its mucous membrane. It looked more like a mass of beef's liver than anything else, and seemed as though the slightest force applied would tear it through, but, pressing my finger against it I found it firm and resisting. It really looked as if the whole bulk of tissue were making preparation to slough away. The livid appearance of the parts is produced, of course, by the immense amount of congestion present, from the steady advance of a tightly fitting head.

Indeed, this livid and congested mass is much more favorable for vital purposes than any one would imagine. Never be led into mistaking this almost habitual condition of the vaginal canal after labor for one of gangrene, for if you examine it twenty-four hours afterwards you will find that the parts have almost entirely regained their wonted appearance, if no loss of tissue have occurred.

In making such an examination as this, the first thing that you are likely to see, if it exists, is a laceration of the perinæum. This condition should be treated promptly and effectually. In the vast majority of cases, the best results will follow if you

bring the torn surfaces completely together at once, so as to keep out the lochia. You will not only save your patient from great and lasting discomfort, but will also thus set aside the necessity of the performance of the secondary operation, which is more serious and always tedious.

You can easily etherize your patient, and you will find her very willing to undergo the operation as a part of the labor process.

It is customary to divide lacerations of the perineum into three classes, viz: (1) lacerations simply of the integuments; (2) lacerations through the perineal body to the sphincter ani; and (3) lacerations completely through the sphincter ani and into the rectum. These last are fortunately very rare. As a general thing, nature seems to guard against this occurrence, and the tear, if serious, takes a course round the sphincter so as to almost dissect it out. If the sphincter ani is torn and gapes, the patient is placed in the wretched position of having lost all power of holding her feces and her wind, and they escape at pleasure, rendering her the most unhappy of women.

I advise you to sew up all kinds of lacerations, for wherever you have cicatricial tissue there you have pain.

The old method of putting in the stitches was to pass the stitch through the integument on the anterior edge of the tear and bring it out on the lacerated surface, and carrying it over to the other side to bring it out there in the same manner. The effect of which was to make a pocket behind the stitch in which the lochia would collect, and so interfere with perfect union of the sides. The old method simply re-unites a part of the lacerated surfaces.

In order to be prepared for such accidents, you should always, particularly in country practice, carry with you the necessary instruments for sewing up the perineum. For this purpose you want needles. I use a long Baker-Brown needle, with an eye at the end in which the wire loop is placed when you are ready to place it in situ.

You may use this needle permanently fixed in a handle, or you may prefer needles which are not attached to a handle, but which can be used by grasping them with a needle-holder, the best form of which is a Russian clamp, which renders the grasp of the holder very powerful.

Many prefer the separate needles, because they are smaller in thickness than the ones with permanent handles, and because, if one of them should be broken, you can very easily replace it.

You should have a pair of bull-dog forceps, a tenaculum, a pair of scissors, and some good, stout silver or iron wire. Or, you may use silk thread, or reliable cat-gut.

If you guard the perinæum by support and lateral incisions when needed, lacerations will be very rare occurrences, the accident when it does happen, need not so cover you with opprobrium, that you shall be afraid to acknowledge the true state of affairs and let your patient go on from bad to worse, rather than make a confession. I say this because I know that the accident may, and in fact often does, occur in the practice of the very best obstetricians.

Before performing the primary operation, you ought to see that the torn surface has been thoroughly cleansed. Use carbolized hot water for this purpose. Be very careful, however, if you find the rent is large enough to need sewing up, that you do not use so strong a solution of the carbolic acid as to destroy the vitality of the parts. You can never get any union between two cauterized surfaces. Always employ a douche of hot water before putting in your stitches, for it stimulates the parts and so hastens the healing process.

I have seen surfaces that looked as if they were going to slough, immediately improve most markedly in appearance under the use of hot water. The stimulation of the tissues produced by the hot water increases ten-fold the chances of rapid and satisfactory union.

Before you proceed to put in the stitches, be careful to place a sponge well up against the mouth of the cervix uteri, so as to prevent the blood and other discharges from getting between the stitches and so interfering with union, and take very good care to withdraw this sponge when the stitches are all in situ.

The books all tell you to make the first stitch below. I always put in the first stitch above, making that stitch draw thoroughly together the margins of sound tissue above the laceration.

In one of my cases the recto-vaginal septum was so thin that the needle could not take hold of the tissue. Now, it is very easy to see that if your first stitch is passed through such thin tissue as this, it is but too likely to tear out, or to ulcerate

through into the rectum. So, always pass your first stitch through the thick and healthy tissue where you know it will hold, imbedding it completely; then pass the other stitches and imbed them all as much as possible in the tissue. I always take pains to imbed the wire all the way around in the tissues, so that when I draw the ends of wire together there is no pocket left behind the stitches. I pass my needle in close to the upper angle of the laceration and pass it entirely round to the other side, so that it does not come out at all, except at the extremity of the suture; then I take a very long wire and pass it through the eye of the needle and draw the needle back. Having, now, one stitch in the strong and unlacerated tissues, I gain a support for the tissues below, a sort of break-water, which protects the lacerated surface from the lochial discharges; then I put in a second stitch. Sometimes the recto-vaginal septum is so thin as to render it utterly impossible to prevent the needle from coming out now and then on the surface.

You are advised by the books to tighten up the lowest stitch first. I advise you to tighten up the highest (*i. e.*, the first) stitch before you touch any of the others, and I think you will understand perfectly why I say this. If you tighten up the stitches from below upwards, the blood and other discharges will constantly be flowing down over the lacerated tissues and will fill up and bulge out all the little puckerings and crevices formed when the lowest stitch is tightened, and so you will have union interfered with; whereas, if you tighten up the highest stitch first, it will protect the tissues below and no blood can fill up crevices, and then all you have to do when you come to the other stitches is to wipe off the raw surface and tighten the next lowest stitch, and so on until all the stitches are secured.

Thus you will have brought together the whole surface of the lacerated tissue, so that when the plasmic material is thrown out, there is no portion of raw surface not in contact with some other portion.

One of the advantages of the Baker-Brown needle is, that it makes a track larger than the wire, and so you withdraw it very nicely; and even when the recto-vaginal septum is very thin, there is less chance of the wire lacerating into the rectum and giving rise to a recto-vaginal fistula.

As regards the method of fastening the ends of wire together

after the stitch has been tightened up, I twist them together.

If you employ silk, be sure to cover it well with wax or paraffine; but after all, there is nothing like thin wire. The best results are obtained from the finest wires.

With regard to the dressing needful after the stitches have been properly secured, I generally use some emollient ointment, such as cosmoline.

The patient must be carefully catheterized for forty-eight hours after the operation, to prevent the urine from running over the wound. Perhaps the nurse may not know how to use the catheter. In this case, I advise you to provide yourself with one of Goodman's self-retaining catheters. This instrument I have used even when the nurse could use the catheter. It is particularly valuable when the meatus urinarius is hard to reach. The gum-tubing connecting the self-retaining catheter with the vessel under the bed, should run *over* and not *under* the thigh. If it runs under the thigh, the catheter rests on the stitches, and so by its continued pressure may do some injury; whereas, if it runs over the thigh, the end of the catheter is lifted off the stitches.

After introducing the catheter, the legs should be bandaged tightly at the knees and the patient placed in bed. The after-treatment is very simple. A vaginal douche should be used at the end of twenty-four hours and the canal washed out with carbolized (weak solution) warm water.

I generally leave the stitches in as long as I can. Patients are always nervous and want to have them taken out, but I never remove them under five days, and if they can be left in for seven days I am all the better pleased. If you take the stitches out prematurely, the parts which are beginning to unite may gap again.

In regard to the treatment of *vaginal furrows*, all that is necessary usually is to wash the vagina out with a strong solution of carbolized hot water. If the bleeding is obstinate, however, you may be obliged to put in vaginal stitches, imbedding them, if possible, at the rate of about five to the inch, to stop the hæmorrhage and cause union, thus preventing cicatricial bands.

Incisions of the labia I am in the habit of cauterizing with pure carbolic acid, so as to prevent septicæmia, for a cauterized surface cannot absorb putrescent materials. In speaking of

labial incisions I refer, of course, to those made for the prevention of perineal laceration. In only one case in my practice have I found it necessary to sew up these incisions with sutures, in which case I did not, of course, apply strong carbolic acid.

With reference to lacerations of the cervix uteri, Dr. Broomall proposes uniting the torn lips immediately by cat-gut sutures. As there is no tension of those tissues after union, I see no reason whatever why she should not succeed perfectly with the cat-gut. The condition of lacerated cervix calls for one of the most serious operations in gynecology, for unless it properly treated, there is the pouting of the cervix and all the attendant constitutional disturbances first pointed out by Dr. Emmet, of New York. I see no reason why the primary operation should not succeed.

If hæmorrhoidal masses project from the anal surface after labor, be very careful to restore them at once when the rectum is widely distended, and they will give rise to no trouble. Pass them in and hold them there until they show no tendency to prolapse again. If left out, they become tense and inflamed and give rise to great agony on the part of the patient.—*Hospital Gazette*.

MYXŒDEMA.

[Clinical Society of London, October 10.]

Dr. Dyce Duckworth read notes of a case of myxœdema, the patient, a female thirty-four years of age, being exhibited. She had been married ten years, and came under his care a year ago with the statement that she had for two years suffered from weakness, which began with swelling of eyelids and right side of face. Her mental condition, too, had changed; she had become abstracted and somnolent. The skin of the face had a peculiar waxy, sallow appearance; the eyelids and cheeks were puffy, and the dorsum of each hand also puffed. The voice was thick and snuffing. She complained of tingling of the hands; there was no anæsthesia. There was some general sclerodema. The urine was of specific gravity 1010, and free from albumen. Heart natural: appetite good. The urine was examined every time she came, but never contained albumen. She

gained in weight, but began to complain of feeling cold. The idea of Bright's disease not being tenable, on her third visit Dr. Duckworth concluded the case to be one of the class to which Dr. Ord had recently drawn attention under the head of "Myxœdema," and then he recalled two or three similar instances in women which he had formerly thought were simply anæmic. The father of this patient was paraplegic a year before his death. One of her children was rickety; the rest healthy. She began to stagger in walking, and to be more irritable in manner. The thyroid could not be felt. At the present time the face is more puffy and waxy-looking than at first; speech is slower, and movements less active. The affection is evidently progressing. Dr. Duckworth remarked that hitherto no case of this disease had been recorded save by London physicians; that it had never been observed in males, but only in adult females. It would be interesting to trace the history of the children of these patients. The most obvious symptoms were those of mechanical interference with nerve-function by the progressive and universal mucoid degeneration of the connective tissue. Taken collectively, the symptoms pointed to a general cachexia.

Dr. Ord also read a paper on the same subject. He stated that two years ago he proposed (in a paper published in the *Medical and Chirurgical Transactions*, vol. lxi. p. 57) to apply the term "myxœdema" to the condition described by Sir William Gull as a "cretinoid affection occurring in middle-aged women." Since that time he had had six cases under observation at St. Thomas's Hospital; one of these terminated fatally, and he read the notes of it in full, summarizing the features of the other cases. The fatal case was that of a married woman, fifty-two years old, who had five children. She was admitted on February 4, 1879. Her mother had died dropsical. She herself had led an active, hard-working life, and had enjoyed good health, but after the birth of each child she had some puffiness of face, and since her last confinement she has been getting weaker. Her gait became staggering, her memory became defective, her speech slow, and she always felt chilly. The face was puffy, especially about the eyelids, the *alæ nasi* thick, and there was a deep pink flush on the cheeks. The expression was dull and sad; the skin appeared swollen and translucent; the hands were "spade-

like;" the abdomen was large, its walls lax; the back was bowed. The thyroid could not be felt. There was some fluid œdema in the legs and feet. She moved slowly on trying to walk, and tended to fall, but there was no limb-paralysis. Speech began by making an effort at swallowing, and the words were interrupted by sudden closing of the lips. She was lethargic. The special senses were not affected; touch was accurate. There was some bronchitis. The pulse was tense. Urine, 1015, contained a trace of albumen; no sugar. The temperature very low — viz., 90.8° in right axilla, and 92° in left. A sudden mental shock a few days after admission was followed by deeper lethargy and delirium, and she died on the fourteenth day of her stay in the hospital. During this time the temperature varied from 90° to 92° , never exceeding 95° , and before death falling to 87° and 77° F. At the post-mortem examination there was effusion in the serous sacs. Heart flabby and dilated. The connective tissue was everywhere increased in quantity and mucoid in character, its fibrils distinct, their nuclei large and abundant. The arterial coats were thickened, and the calibre of the vessels diminished. There was increase also in the stroma of the liver and kidneys, as well as in the skin, in muscle, and in the spinal cord, the connective tissue in all these parts having undergone the same mucoid retrogression. Of the remaining cases he said that all were adult women, and in all the change had followed confinements. In none was there any evidence of the existence of syphilis. In all the skin was dry, rough and translucent. They were all lethargic and slow in speech and movement. In two the mental condition had advanced to aberration. In all the temperature was below the average; in one case now under care it was 93° F., and in another case under Dr. Harley's care there was mental disorder and lowered temperature. The urine was slightly albuminous in three of the cases. He attributed the nervous enfeeblement to the padding of the peripheral extremities of the cutaneous nerves by the altered tissue, and compared the effects to those produced by varnishing the skin. Several photographs and morbid specimens were shown in illustration.—*Lancet*, Oct. 1879.

THE CURE OF CONSUMPTION, BY THE SALISBURY METHOD OF DIET, (THE MEAT DIET).

Over 75,000 people die every year from this disease alone in the United States. The one thing to be noticed in the study of the statistics of ~~consumption~~ is, that climate has not so much to do with it, as has the method of feeding of those who suffer from it.

New England baked beans have been the cause of more disease than has the severity of its climate.

Consumption is hereditary, just as a father's spectacles or cane may be. If one accepts and chooses to wear the spectacles and walk with the cane, they are hereditary, and pass from father to son, but not otherwise. Whatever way one may live, the children will be likely to follow; and if the diet of the parents was food likely to ferment—such as fruits, vegetables, etc.—the children will follow in the same manner of eating. The principal thing needed is to change the diet, and regulate it according to the requirements of the patient's system. One may be predisposed to consumption in the sense that they have been accustomed to a diet that will, if persisted in, cause that disease; but it is within the power of every one to rid themselves of this predisposition by avoiding the cause. Consumption is not, like some other diseases, entailed upon us—only the conditions are, in a secondary sense; and a child born of a consumptive mother has no more liability to this disease, than one whose mother died of old age, provided the child will live in accordance with the requirements of health. The child's blood may have more or less of yeast, or fungoid growth in it; but live aright, and this yeast will die out, because the blood is no longer a fit soil for it to grow in. This yeast being removed, there remains no more tendency on the part of a child born of consumptive parents to consumption, than there is in any other person.

On the other hand, a strong, well man, born of healthy, long-lived parents, will develop consumption if he eats exclusively or too freely of food now known to cause it.

A great point is gained when we satisfy the patient that his

case is not necessarily fatal because the parents died of this disease, and that it need never be fatal if properly treated.

As to how low one may get and recover, depends upon individual cases, and can be determined only by time. The writer can only refer to cases, and let the facts speak for themselves. If there has been no organic lesion—no absolute breaking down of some vitally important organ of the body, then one may reasonably hope to recover. Cases are not uncommon of people living with one lung only being in a serviceable condition, and that lung developed to twice its normal size, because doing double duty.

Of all places, the *extreme* South is no place for a consumptive. In a dry atmosphere, the food ferments less actively, and the atmosphere, because of its rarity, has a tendency to cause expansion of the lungs; but in a warm or damp atmosphere this fermentation goes on much more rapidly.

The great benefit derived by some invalids who go to the extreme South comes from the fact that the climate is such that one can be out of doors much of the time; and this being in the open air is of itself beneficial. But of seven consumptives who boarded at the same house with the writer, while in Florida, and who depended upon climate and medicine to cure them, while still eating freely of fruits and vegetables, five are known to the writer to have since died; of the other two their fate or present whereabouts is unknown. In a tropical climate, the abundance of fruit and vegetables are most to be feared as offering tempting opportunities for excessive eating. Then the days are warm, and the nights cool, which bring too marked a change in the twenty-four hours, to insure exemption from colds.

[After fully relating his own case—he had suffered for several years, been subject to all sorts of treatment, and become greatly reduced in weight and strength, with partial paralysis, impairment of mind, night sweats and swelling of feet and legs—the writer continues:]

The cause of all my trouble was in eating too freely of food likely to ferment in the stomach. My diet had been largely of fruit and vegetables, often making a meal from fruit alone in its season. Prunes were an especial favorite with me the year round. The reverse of this was to follow a diet of meat exclusively, by which the defective alimentation becomes improved,

the digestion improves, and more perfect assimilation takes place. This is followed by increased appetite and more healthy secretions.

I cannot better illustrate this method of treatment, which is known as the "Salisbury Diet Method of Cure," than to give the directions followed in my own case. One hour (not less) before each meal, and on retiring at night, I drank one-half pint of hot (not warm) water. This was to wash out the stomach and bowels, and remove the yeast which was in them. This alone is an excellent appetizer, and does more good than all the medicine one can take. Since all food which would ferment was forbidden, it was left for meat alone to be the food, and nothing can be more easily digested, or give more strength than meat. The principal food is broiled steaks; but chicken broiled, oysters broiled, or raw—with lemon juice instead of vinegar—salt and pepper to taste. One mouthful of bread or boiled rice to six of meat, and a cup of tea or coffee without sugar or milk, may be taken. Wild game can be used if desired for a change; but for steady eating, lean, broiled steak will be found the most desirable and most readily obtained. The round steak is preferred because of its juiciness; and if taken from the third to the sixth cut will be the most nutritious of any.

The method of preparing beef is as follows, and is the result of two years' experience of the writer's wife in broiling meat: First, trim off all the fat, then cut out the bone and all the large fibres and strings; then chop fine as for suet meat. Next, with a knife and fork, go over it again and remove all the little fibres that may have escaped notice before, and it is then ready for shaping. The meat is now almost a paste, and can be made into steaks of any size, or formed in a plate into one large piece to cover the broiler, which, when cooked on one side, can be turned by covering with the plate and reversing both plate and broiler, taking care to save the gravy. Butter, salt and pepper to taste after being cooked—not before—as it hardens the meat. A change can be made to porter-house or tender-loin steak if desired—not chopped, but trimmed of all fat. A roast of beef, lamb roast (trimmed of all fat) and dried beef can be eaten sparingly after awhile; but for steady eating, broiled steak will be found the best. Lamb and chicken should be avoided if there is a tendency to diarrhœa; and in cases of excessive diarrhœa,

stop the hot water for a few times, and substitute a glass of boiled milk, made black with pepper.

On retiring, take a bath of hot water, in which has been put a tablespoonful of ammonia, and finish with a brisk rubbing.

This is the treatment as followed in my own case, and is the one to be followed in most cases, with but slight modifications, according to individual needs.

At first it may seem hard to sit down to a table filled with the delicacies of the season and eat only meat, with perhaps a few mouthfuls of bread or rice. But if this diet be strictly adhered to for a few days, the desire for other things will be found to be less and less each day, and soon cease to be any temptation. A good resolution is necessary, but a good resolution is nothing if not carried out. It is a good starting point, but a poor terminus.

In the general method of examination by auscultation with the stethoscope, etc., the patient may be, and in fact generally does, progress into the second year of the disease before it is detected: while by the more scientific and surer method of microscopical examination of the blood, the first indications of the disease can be detected; and thus the physician will be enabled to remove the cause, and ward off entirely what would otherwise terminate in a long sickness, if not ultimately result in death.

The cause of this disease, as has been said, is a fungoid or vegetable growth in the blood. If a drop of the blood be examined under the microscope, it will be found to be filled with this vegetable growth, which looks like the spores of baker's yeast. This abnormal growth lives upon and floats in the blood, reducing the number of red corpuscles, and causing the blood to become watery, and depriving it of the life-giving qualities. The stomach of one in this condition is little else than an yeast pot. All that is taken into the stomach ferments, causing carbonic acid gas to generate. This rises mainly to the cavity of the left side of the stomach—this being the highest point—and paralyses the muscles, and so interferes with the action of the heart, lungs, and vocal cords as to cause loss of voice, and often partial paralysis of the legs, as in my own case. The drinking of hot water washes out the yeast which is in the stomach and bowels, and thus serves to give increased appetite. If nothing

but lean meats are now taken, this stomach fermentation phase of the disease will soon disappear. There will be no more pain from wind or gas in the alimentary canal, and no heart-burn nor loss of voice nor disagreeable eructations.

Another feature of this system of treatment is, that the patient himself is to do the work, and not leave all to the physician. This employs the mind and makes one thoughtful and more observing; and moderate regular daily exercise relieves the monotony of the sick room.

Any gentle exercise which is not too exhausting, and which has a tendency to expand the chest, will be found to be of value. A gentle drilling with light dumb-bells, or some equivalent weight is good, taking care to throw the head well back of the perpendicular, and going through all motions with the lungs inflated to the fullest extent. Make a practice of breathing to the full capacity of the lungs often throughout the day, beginning with ten deep-drawn breaths, then resting and repeating and increasing the number with the ability to do so without tiring. If one is very low or weak, as brisk a rubbing by another as can be borne will be found an excellent substitute for any better form of exercise; and whisky or New England rum may be used, which is found to impart much increased vitality.

In extremely low cases, avoid all excitement, using the care necessary in any sick room. Where one can eat but a small quantity of meat at a time, begin with five meals a day, served hot, and never hurry mastication. In case of five meals a day, of course the hot water need not be taken any oftener than when three meals are given. Mustard drafts, flannels wrung out of hot water, red pepper sprinkled upon the wet flannel and hops dipped in hot water, with other simple remedies, may be used to advantage as required. Salt, and most kinds of spices, can be used, while lemon juice should take the place altogether of vinegar. One may begin by eating one-half of a lemon, and if this is found to agree, increase the quantity gradually until a whole one is eaten every day.

The whole diet consists in food that will not ferment, to the entire exclusion of all kinds of fruits and vegetables, sweets and sour (excepting lemon), and all food that will ferment in the stomach. For a relish on the meat, Halford's, or the

imported Lea & Perrin's Worcestershire sauce, may be used as freely as desired.

This method has long ceased to be a matter of experiment. It is a reasonable one, scientifically correct; and experience has proved it to be successful. Not only can consumption be cured by this method of diet, but an opposite one, if persisted in, will reduce a strong, well person in less than one month to a dangerous condition of consumption of the bowels; and if more time is taken, to pulmonary consumption.

[Here follows a recital of seventeen cases, all recovering under this plan of treatment. We will give but one:]

CASE XVII.—The writer's own case has been a very marked one. He began treatment by eating one-half pound of meat per day; increased to eight pounds per day, which was kept up for several weeks. In two months from beginning treatment, he was well enough to go back to business, and has ever since been attending to it without any farther trouble. His flesh hardened right up, and his muscle increased to a remarkable extent. He is eating now two and a half to three pounds of meat per day. Chest measure at beginning of treatment, contracted $27\frac{1}{4}$ inches; inflated $28\frac{1}{4}$; chest measure to date, Aug. 5th, 1879, contracted 32 inches; inflated $34\frac{1}{4}$. Weight 129 pounds, with not so much increase in fat as in blood and muscle. He has not *tried* to see how much in dead weight he could lift, but he has lifted within the last week, with ease, 400 pounds. The muscles in the calves of his legs have increased one-half inch in the last month. He is now feeling perfectly well every day, with more life and spring in him than for years previous to his sickness.—Norton, in *The Va. Med. Monthly*, Oct., 1879.

NOTES AND EXTRACTS.

THE DISTRICT MEDICAL SOCIETY OF SOUTH-EAST MISSOURI held its semi-annual meeting at Carthage, Jasper Co., Nov. 11th and 12th. It was largely attended by the profession in that section of the State, and the proceedings were of a most interesting and instructive character. The physicians of S. W. Mo. are already planning to give the State Med. Ass'n (which meets at Carthage in May) a hearty welcome.

THE LATEST NEWS FROM JAPAN, according to the *Gazette Hebdomadaire*, of Oct. 24th, is to the effect that 70,000 persons had been attacked with cholera, of which 39,200 have died, being 56 per. cent. of the whole number.

BARTON COUNTY, Mo., has established a medical society with its place of meeting at Lamar. If the enthusiasm of its members continues, as has been manifested at its inception, this young society will soon rank with its sister organizations in adjoining counties.

THE PETTIS COUNTY (Mo.) MEDICAL SOCIETY meets Monday evening of each week, at Sedalia. Already it is doing magnificently well, the members working faithfully and accomplishing what they can to advance the standard of legitimate medicine in that section of the State.

WE are pleased to note the return of Dr. Geo. J. Engelmann, to the city, to health and to practice, after a lengthened stay at the East, where he had gone to spend a honeymoon, and to recuperate his broken health. It is about nine months since the dissecting wound was received, which, in its results nearly cost him his life and which has finally caused the sacrifice of a finger.

THE WASHINGTON TRAINING SCHOOL FOR NURSES opened its second session, Oct. 27, 1879, by public exercises, presided over by Dr. Toner, who delivered an able address on the needs and advantages of professionally-educated nurses. Dr. Taber Johnson followed in an able plea for the better preparation of those immediately intrusted with the care of the sick in hospitals and in private families. The school is in a prosperous condition.

THE GRAND RIVER MEDICAL SOCIETY OF MISSOURI will hold its fifth semi-annual meeting at Trenton, Grundy Co., Mo., on Dec. 2d and 3d, 1879. Dr. Wm. M. Givens, President; Dr. E. A. Wagner, Vice-President; Dr. T. Brown, Secretary and Treasurer. Drs. G. A. Goben, F. M. Davis and L. E. Tracy, Committee on Ethics. Drs. Rueben Barney, C. L. Weber and P. Austin, Committee on Membership. Drs. W. R. Berry, A. H. May and G. W. Hutchinson, Committee on Arrangements. Drs. M. Bottom, P. Austin, W. R. Berry and L. E. Tracy are expected to read essays on medical subjects.

BLOW SULPHUR into the throats of diphtheritic cases with a tin bellows, found in the shops for blowing a poisoned powder into holes and crevices, for the destruction of bugs, etc.

A DIVORCE should be made between teaching medicine and the right to practice medicine. It is one of the essential points in medical legislation. Such divorce obtained, an honorable rivalry will exist among medical teachers to make thorough students instead of to get large classes—students who will pass with honor the rigid ordeal of a licensing board.—*Am. Prac.*

SCARLET FEVER, epidemic at Springfield, Ills., is being attended with great mortality. The public schools have been ordered closed for the remainder of the year. Public funerals are prohibited, and viewing the remains of those dying of the fever is forbidden. Houses will be placarded and stringent rules be adopted to prevent the spread of the disease. Houses will be fumigated and children kept from off the streets.

PRESERVE THE TRACINGS of the sphygmograph by making a strong solution of the (red) ferro-cyanide of potassium. Paint this solution over some sheets of writing paper, allow the paper to dry in the dark, and keep secluded from the light. When it is required to make copy of the tracings, cut a piece of the paper of an appropriate size, and having laid the glass upon it, face downwards, expose it for some hours to the sunlight. Then remove the paper and wash it in clear water. The curve will be found printed in blue.—*M. and S. Rep.*

THE *London Medical Record*, of Oct. 15th, under the head of "Leading Articles," has copied entire, but without credit, the editorial article on "Lipæmia and Fat Embolism in the Fatal Dyspnœa and Coma of Diabetes," which appeared in the *Courier* for September. The original paper, from which we made our carefully-prepared abstract, is to be found in the *Edinburgh Medical Journal* for July, 1879. Although the failure to place the credit where it belonged was undoubtedly an oversight on the part of our English contemporary, we venture to call attention to the fact in the interest of a more accurate journalism.

THE FOLLOWING MEDICAL JOURNALS are needed to complete files in the Library of the Surgeon-General's Office, Washington. Readers having any of the numbers will confer a favor by

forwarding them to the Librarian, Dr. I. S. Billings, U. S. A. Surgeon-General's Office, Washington, D. C. Any reasonable expense will be met :

Western Medico-Chirurgical Journal. Monthly—Keokuk, Iowa. Nos. 7 and 8, Vol. II, and all subsequent to No. 1, Vol. III.

St. Joseph Journal of Medicine and Surgery. Bi-Monthly—St. Joseph, Mo. Nos. 1, 2, 3 and 6, Vol. I (1858-59); Nos. 3 and 6, Vol. II, and all after No. 3, Vol. III, (January, 1861.)

St. Louis Medical and Surgical Journal. Monthly. No. 10, Vol. I (1843); Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11, Vol. II; title page and index, Vol. IV; No. 6, Vol. IV; all after April, 1849, and prior to January, 1850.

St. Louis Probe. Monthly. Nos. 1, 5, 6, 9 and 10, Vol. I, (1850.)

CHARITY WORK.—Advice to a young doctor—"Having, in a long time of practice, both from choice and necessity, done a great deal of gratuitous service, I have yet to find a single case where my charity work was appreciated. Those who pay nothing always offset it by liberal abuse, which keeps away those who would pay. Your charity case may be a worthy man, but if you were making a struggle to build a house would he work for you at reduced rates (or for nothing)? It is the doctors themselves, who allow their kind feelings to overrun their judgment, that are responsible for this wholesale robbing to which every doctor in this land is subjected. We deal with the most afflicted; so does the undertaker, who is not expected to work for nothing. We can maintain no rights that we weakly yield to extortion.

The doctors are most universally regarded as rich persons who ride about for exercise, and practice for philanthropy, to be paid if everything turns out lovely; if not, they can go to the d—l and must not complain. The people who pay are always grateful; the thieves are like other dead beats, abusive and always most exacting and querulous * * *. If the patient cannot pay for what might save his life, his friends or the public should. It is easier for the town to shoulder the cost than two or three poor devils who had the bad luck to study physic. Now or never is the time to put ourselves on the same footing with other business, and as we have the same losses we must ask for the same gains.

Ca. Lancet.

OBITUARIES.

KENNARD. —Dr. Thomas Kennard, whose death has recently occurred in this city, was born June 1st, 1834, in Kent Co., Md. After graduating at St. Timothy's Hall, near Baltimore, he spent three years at the University of Virginia, during the last of which he commenced the study of medicine. In the fall of 1855 he went to New York, and matriculated at the University Medical College, graduating there in the spring of 1856. He settled in St. Louis in 1858, where he resided up to the date of his death.

Dr. Kennard, during his career here, filled a large place in the professional eye, and did much good work of a scientific and practical character. He was a member of The American Medical Association, of the State Association, of the Academy of Sciences, and of the St. Louis Medical Society, of which latter he was at one time president, besides occupying several important positions in the State Association. He wrote a number of excellent papers on medical subjects, which were widely copied into home and foreign journals. He will be particularly remembered for some excellent contributions to the study of syphilis and venereal diseases, besides noteworthy essays on diphtheria, variola, sun-stroke, etc.

In private life Dr. Kennard will be missed by many warm personal friends.

At a meeting of the profession of St. Louis, held Nov. 15, Dr. Montgomery presiding, expression was given to the sense of loss which is so generally felt, and suitable resolutions of respect and condolence were unanimously passed.

JAMES AITKEN MEIGS, M. D., Professor of the Institutes of Medicine, Jefferson Medical College, whose death is recently announced, will be greatly missed by a large circle of friends; the college especially will feel his loss, as he was gifted with superior powers of mind, cultivated and matured by a life of study and research. His manner in the lecture-room was clear and impressive, whereby he secured the attention and sympathy of his pupils. Struck down in the prime of life, he will be deeply mourned not only by those who knew him best but also by the profession at large.

DR. ALPHONSE DEVERGIE.—France has just lost another of her medical celebrities, in the person of M. Alphonse Devergie, the distinguished medical legist. Born in 1798, he received his diploma in 1823. Becoming an *agrégé* after a distinguished *concours* in 1825, he in the course of a few years was appointed to the St. Louis Hospital, where he acquired his great reputation as a dermatologist. He was elected into the Academy of Medicine in 1837, after a successful contest with Tardieu, and was president of that learned body in 1874. For many years he enjoyed a great reputation as a medical expert, in which capacity he was a brilliant rival, first of Orfila and then of Tardieu. In sanitary science he also occupied the highest position, being one of the founders of the celebrated journal, *Annales d'Hygiène et de Médecine Légale*, and an active member of the Conseil d'Hygiène. He re-organized the Morgue and continued its director until 1876, when he was succeeded by Professor Brouardel. One of his latest services consisted in the aid which he gave to the formation of the Société de Médecine Légale about ten years since, and which has since become so important an organ for the union of the professors of law and medicine in relation to all questions of medical jurisprudence. Among the large number of works which he published, his “*Traité de Médecine Légale*” and his “*Traité des Maladies de la Peau*,” are the most remarkable.—*Medical Times and Gazette*.

MORTALITY TABLE.

CITIES.	ESTIMATED POPULATION	DEATHS.	DEATH RATE PER 1000.
New York.....	1,100,195	*2,475	23.40
Philadelphia.....	901,380	*1,212	14.00
Brooklyn.....	564,448	*1,121	20.70
St. Louis.....	500,000	*527	10.95
Chicago.....	460,000	†699	18.23
Boston.....	375,476	*683	18.98
Cincinnati.....	280,000	*439	16.34
New Orleans.....	210,000	*397	19.67

* For the five weeks ending October 11th, 1879.

† For the month of October, 1879.

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ORIGINAL ARTICLES.

CLIMATIC AND HOME TREATMENT OF PULMONARY PHTHISIS IN EUROPE.

By J. H. TYNDALE, M. D.

THE therapeutics of pulmonary phthisis undergo a natural division into climatic and home treatment. In this country the home treatment of consumptives has been attended with very unsatisfactory results, at least so far as hospital practice is concerned. In private practice greater care in diagnosis to determine the special form of phthisis, careful directions as to food, exercise, lung gymnastics and the discriminate use of such remedies as the hypophosphites, cod-liver oil, etc., have been fruitful in curing incipient catarrh of the apex, and in arresting the colliquative symptoms and improving the general condition of patients. The question of the most suitable climate for actual recovery, for absorption of infiltrations and healing of cavities by contraction, is still in a very unsettled state. Mild equable temperature of Southern States, or of sea islands on the one hand, mountain altitudes varying according to latitude on the other.

As it may not be uninteresting to take a glance at the way these questions are looked upon in Europe at the present time, I will give a short abstract of the general drift of medical opinion in reference to climatic and home treatment—opinions which generally take their shape from a few leading minds.

IN ENGLAND, it is chiefly J. Henry Bennet, who gives direction to the medical mind as to climate. Once a strong advocate of Madeira and of mild southern climes generally, he has now so far modified his views as to add altitude to southern stations, recommended by him. In his last publication, "The Genoese Riviera in Spring—Swiss Mountain Stations in June," he advises to let patients remain, not to leave the Riviera until the end of May, and to pass June and the rest of the summer months at Swiss mountain stations, in the southern part of Switzerland, varying in altitude from 3,000 to 4,400 feet. It should here be remarked, that Bennet himself has lived at Mentone for fourteen winters, with what result does not appear. Neither does it appear that he attributes any of the benefits derived to altitude, with its purity of air and abundance of light, heat and electricity. On the contrary, he compares these Swiss mountain stations to the sea coasts, flat-lands and plains of the British Isles, and parts of the sea-coasts of France, Belgium and Holland, and holds that these would be on a par with the Swiss mountains as regards advantages of temperature and clearness of atmosphere.

A very interesting paper is by Leach, "South Africa as a Resort for Pulmonary Invalids" (*Lancet*, May, 1879). South Africa, with Capetown as its chief city, has in latter years had quite a prestige with the medical profession of England, and cases have been sent there promiscuously. Leach points out that at present the conditions are not such as to permit of the transportation and remaining of patients in the advanced stages of phthisis. He says that, notwithstanding the clearness, dryness and general salubriousness of the atmosphere, it is a mistake to suppose that such

patients could accommodate their circulation and respiration to the relatively greater call upon their functional activity.

From recent accounts, it would appear that the high upland plateau, constituting a portion of the dominions over which Cetywayo lately ruled, is the real sanitarium for consumptives. Some very interesting facts in regard to this section (extending northward) have come to my knowledge.

Leeson draws the attention of the profession to emigration to the River Plate as a means of cure or arrest of incipient phthisis. This region is the southern portion of the Argentine Republic, and its climate similar to that of Portugal. During a practice of fifteen years, the author never came across any case which could, with propriety, be termed pulmonary phthisis. He is good enough to admit, however, that with the present influx of population, phthisis will become more marked.

In home or local therapeutics, nothing new has been developed. The administration and entire reliance upon the hypophosphites of Churchill, and followers, has been found not to hold water. Several voices have spoken in regard to the uncertainty of their action, but it is not possible here to reproduce them.

GERMANY presents the greatest number of observers, with equally great differences of opinion, as to climate. Yet the "altitude treatment" is strong in the ascendancy, owing to the continued successes of Dr. Brehmer, at Gärbersdorf, Silesia; Davos, in Switzerland, and Dr. Detweiler's sanitarium at Falkenstein, in the Taunus. The latter, I may here remark, has not the proper altitude for its latitude, hence the successes have not been so permanent. The chief differences of opinion, then, are not as regards the propriety of altitude treatment, but of the seasons of the year when changes should be made. Meran, in the Tyrol, is one of the places to which changes from higher altitudes are made in the spring. This is especially indicated at

altitudes like Davos, when the snow begins to melt. For these transition-periods, St. Beatenberg, near the Thuner lake, and adjoining region, are now recommended, and likewise endorsed by Bennet, of England.

Now, that the curative effects of high altitudes are being universally accepted, a few authors (Reclam, Volland, etc.) have endeavored to study the characteristics of the climate of high altitudes. The effect of high altitudes upon ultimate changes in the tissues, is chiefly accredited to rapid nutrition, assimilation and excretion. The effects of sunlight and consequent evaporation have received some attention.

Parts of the island of Corsica are lauded by Brunner, as combining the effects of equable southern temperature and limited altitudes. It is admitted that the climate is moist, the rainfall great and malarial infection the curse of the island.

The combination of a regulated "milk-cure" in the mountains has been agitated *pro and con*. Sebert advocates a residence at Silvaplano, in Oberengardin, from about the 21st of June to the 20th of September, combined with milk-diet, more especially for constantly-recurring catarrh of the air-passages and decided tendencies to tuberculosis.

At the health-resort Schœneck, near Beckenried, on the Vierwaldstätter Lake, the effects of moderate altitude (not high enough for its latitude) are combined with douches, the use of compressed and diluted air, electricity, general gymnastics and milk-diet. The resort is too recent to admit of any statistics.

The results obtained at Davos (mentioned above) have justified Spengler in enumerating the indications to be met there: 1. Prophylaxis against phthisis. 2. Catarrh of the apex. 3. Chronic infiltration of apex (peribronchitic or resulting from pneumonic processes). 4. Chronic bronchial catarrh, when not complicated by numerous bronchiectases and emphysema. 5. Simple laryngitis, not dependent upon tuberculosis.

Lastly, we will take a hasty glance at the internal and local treatment of phthisis now practiced in Germany.

Perhaps the most worthy of our attention is the *inhala-tion of nitrogen*. Treutler reports ninety cases treated, in which all forms of chronic lung trouble are represented. The communication is a preliminary one. Perfect cures are claimed for the majority of cases, but fuller details are deferred to a later publication.

The use of the *pneumatic cabinet* and *transportable pneumatic apparatus* is still practiced extensively. Since the introduction of Waldenburg's apparatus for inhaling compressed air, movable and immovable apparatus have been invented in great number. Compressed air, diluted air and nitrogen are employed for inhalation, with exhalation into diluted air, compressed air or the ordinary atmosphere. The results of either method, and all of their modifications, may be summed up in this: Bronchial asthma has been greatly relieved, and by continued use cures have been effected; the general condition of consumptives has been somewhat improved by increased metamorphosis of tissue; expectoration has been facilitated by the exercise. All reports agree in this, that cases have only been improved. Disappearance of a well-defined infiltration or healing of cavity has not been noticed.

A new form of cod-liver oil, which is said to possess the long-looked-for quality of agreeing with the most delicate stomachs, is being prescribed by the profession in Germany. It is "*steam-distilled cod-liver oil*," and manufactured by H. Meyer, at Christiana.

In FRANCE, the subject of climatic treatment of pulmonary phthisis has never received the attention it deserved. The old notion of warm southern climate, with as little change of thermometer as possible, has a firm hold upon the profession. I have noticed that in all countries or sections where no mountain ranges of any considerable height exist, the subject of influence of high altitudes is

more or less neglected. The French are in the habit of sending consumptives to Nice, to Pau, and sometimes to various stations in the Pyrenees, without any regard to altitude or noxious local effects. Algiers is still a favorite region for those who can make up their minds to remain long enough. The average Frenchman, however, will consider himself permanently expatriated when told to locate in Algiers. M. Sandowski, in his publication "*Le Climat de l'Algérie*," has striven to rehabilitate the same. He points out that the barometric changes are very slight; that, thanks to the protected situation of Algiers behind the mountains of Budznehah, the atmosphere is very tranquil. The clearness and transparency of the air, the intensity of the sun-light, and last but not least the statistics, all serve as proofs of the beneficial effects of this climate.

In contradistinction to these very sensible and correct views, we find in France a disposition to harp upon the treatment of tuberculosis (in various forms) by mineral waters at their natural sources. *Arsenite of soda*, the *bicarbonates* and *weak sulphur waters* are administered by baths, inhalation and drinking. This method is now extensively practiced at Mont-Dore, and championed by many of the best men in the profession. The results are, however, the same as in all cases of changes to low altitudes, change of diet and habits of life, namely, increase in weight, lessening of the expectoration, and consequent reduction of temperature and increased appetite. No claims are made for the removal of infiltrations or any change in the physical signs, save the diminishing (temporarily) of râles.

These French methods of utilizing sulphur springs for the treatment of chronic catarrhs, remind me of the temporary breeze raised in 1877 by our own Storer, of Boston, in favor of the *Solfatara air of Pozzuoli*. Storer's case was that of his own son, who, he claims, was cured of pulmonary phthisis by residence at Pozzuoli. The only

hitch in this case was that the son had no physical symptoms.

The methods employed here (at Pozzuoli) consist essentially in having the patient breathe the sulphurous atmosphere surrounding a crater, for a number of hours several times a day. Increase in weight and lessening of expectoration, followed by normal temperatures, are the same combination of results which we can attain by any change whatever from city to country, from cold to warm, and *vice versa*, from moist to dry, and at any season of the year, in any country.

ROCKY MOUNTAIN SANITARIUM, Manitou, Col.

TRACHEOTOMY IN CROUP AND DIPHTHERIA.

By ROBERT McNUTT, A. M., M. D., *Rocheport, Mo.*

In the month of November, 1878, a severe epidemic of throat disease, diagnosed as diphtheria, broke out in Columbia, Mo. There was great fatality among children under ten years of age. The first cases I saw were under the professional care of my brother, Dr James McNutt, of that place. They were quite grave cases, with involvement of the larynx, but ultimately recovered without a resort to surgical interference. Shortly after attending these cases, the disease broke out in his own family, and I give the first case as detailed by himself, as a pen-picture; and in this article I propose to give the best information that is had with regard to the operation, the kind of tubes, and the after-treatment, with the opinions of a number of physicians who have believed themselves lucky in discovering successful modes of treatment, which, when tried in positively bad cases, had no beneficial therapeutic effects.

"B. M. Aged 6 years and three months, taken with a severe attack of diarrhœa at 1 o'clock P. M., Nov. 15th 1878,

of which he seemed to get well toward evening of the 16th, but was taken with a chill followed by high fever. The fever continued throughout the 17th; pulse 150, respiration 50, temperature 105° Fahrenheit. Complaint of sore throat. On examination found right tonsil inflamed and swollen, and studded with white patches of false membrane. Administered a purgative dose of calomel, and gave a saturated solution of chlor. potass., a teaspoonful every two hours, and swabbed the tonsils with a strong solution of permanganate of potassa, and gave sulph. quiniæ—five grains three times daily.

"Nov. 18th, A. M., fever greatly abated, great thirst continues, no appetite, profuse perspiration, swelling of tonsils increased, inflammation extending over the fauces, calomel operated freely; continued potass. chlor. and quinia with potass. permanganate solution applied locally as before. Five o'clock P. M. another severe chill supervened, lasting some two hours, followed by intense fever, great thirst, and total want of appetite. Uvula and left tonsil greatly inflamed, with membranous exudation visible over entire fauces, extending nearly around uvula and approaching toward anterior of half arches. Nov. 19th, croupous cough discoverable, with huskiness of voice continuing through the day and becoming much aggravated towards evening, though the fever subsided considerably. At 5 P. M. temperature 102° , pulse 140, respiration stridulous and somewhat irregular: aphonia fast approaching. Nov. 20th, symptoms denote amelioration, voice better than yesterday, but croupous cough still continues distressing. Fever nearly gone; skin bathed in clammy sweat after each paroxysm of coughing, great thirst, no appetite. Diphtheritic exudation spreading, enveloping uvula and increasing in intensity. Continued same treatment. Nov. 21st, aphonia nearly complete, with great dyspnoea; gave emetic of turpeth mineral which seemed to relieve the difficult breathing temporarily. Tried various inhalants throughout the day with apparent benefit. Antimony, ipecac and

other nauseants seemed to do most good, but only temporarily; the disease evidently making unchecked progress. Spent a very bad night.

“Nov. 22nd, condition very distressing, aphonia complete, great apnœa, with whole surface showing marked cyanosis. Sent for Dr. Robert McNutt, of Rochepoint, and in the mean time called in Dr. Arnold, of this place, who concurred with me in the opinion that all further medical treatment would be unavailing, and that the only hope rested in surgical interference. Dr. McNutt arrived at 5 o'clock P. M. and, recommended that tracheotomy should be performed at once. Having obtained sufficient anæsthesia by chloroform, crico-tracheotomy was performed and a light, hard rubber double canula was inserted. The operation was completed about 9 P. M. After the usual spasmodic expulsion of blood and mucus from the trachea by the tube, breathing became quite easy, and in a few moments the boy sank into a quiet sleep, natural color returning to the whole system. This lasted about one hour, when he awoke with evident signs of returning dyspnœa, breathing hard, with whistling and blowing sounds through the tube. I at once removed the inner tube, which gave immediate relief. I found it coated inside with tough coagulated bloody mucus, which took considerable force to remove. Having cleaned it by forcing pellets of cotton through it with a bent wire, and lubricating it with lard, I returned it, not however without some difficulty, the tough mucus having in that short time collected in a coating on the inner surface of the outer tube. From that time I watched the child's breathing carefully, and always removed the inner tube on the first signs of dyspnœa, this often happening every 15 or 20 minutes; carefully cleaning, washing with warm water, lubricating and returning it with as much expedition as possible.

“During the four days and night succeeding the operation the patient was not allowed to be one minute without the attention of an experienced professional eye. And

during all this time his food consisted of milk and cream, which he had but little difficulty in swallowing, and he improved steadily after the subsidence of the febrile reaction which set in on the day succeeding the operation, and which lasted about ten hours. There being such marked improvement after the operation, medication was suspended; action of the bowels, which were somewhat inert, was obtained from time to time by simple enemata of warm water.

"On Tuesday, the 26th, I removed the entire canula from the wound, for the first time, and by stopping egress of air by wound, tried if the larynx was pervious; but patient was unable to force air through the natural passage. Returned canula in three hours, allowing it to remain till the morning of the 27th, when I removed it again, and endeavored to force respiration by the larynx, with partial success. Patient spat several shreds of false membrane, one of which was a complete sheath of the uvula. Returned canula in the afternoon; wound beginning to granulate about the edges: still find it necessary to remove and clean the inner tube at short intervals. Nov. 29th, some difficulty manifested in swallowing fluids, totally unable to swallow solids, though in all other respects much improvement is evident. Considerable air can pass *out* through larynx, but none on inspiration. Total aphonia continued. Returned canula at bedtime with some difficulty, owing to partial closure of the wound; discharge of false membrane, by the mouth, still continues, and inflammation of fauces subsides, with large spaces denuded of membrane. Diet, milk and sweet cream.

"Nov. 29th. Did not remove entire canula to-day, fearing closure of wound before laryngeal breathing could be restored. Nov. 30th. Removed canula a few hours to-day and found considerable egress and partial ingress of air through the natural passages, with a cracked falsetto voice on effort of patient. Much expectoration of tenacious mucus continues, mostly through artificial opening, but

to-day for the first time some passed through the larynx, bringing considerable false membrane with it. Returned canula in the evening, causing a good deal of pain, the trachea showing evident signs of irritation. Dec. 1st. Removed canula this morning, and find respiration pretty well restored through the larynx. I did not again return the canula, as the air passages rapidly regained their normal functions, with a return of the natural voice."

It may be added, that on the 12th of March, 1879, this boy was seized with great difficulty of respiration, and it was feared that a resort to tracheotomy would again become necessary. On the 13th he coughed up a mass of purulent matter, which appeared to be the remains of a softened crust or scab, the result of inflammation of the internal cicatrix of the trachea, involving considerable area of the tracheal mucous membrane, and, perhaps, the larynx. He has since that event enjoyed excellent health, and his voice is in no way impaired.

The next case to which I will ask attention, is that of a younger brother to the preceding, Stewart M., aged two and a-half years. I was summoned on the morning of Jan. 6th, 1879, to go to Columbia in haste to perform tracheotomy. On my arrival, the little fellow was cyanosed and seemed to be in the last struggle for breath. My brother had several of the physicians of the town called in to render assistance. This child needed but little chloroform, as he was already nearly anæsthetized from the retention of carbonic acid in the blood; however, we used the chloroform for a few minutes, and then I proceeded to open the trachea. I pinched up as much of the integument as I intended to divide, between my left fore-finger and thumb (I lay great stress on this part of the proceeding, as it renders the operation much more simple and expeditious), and with a sharp-pointed curved bistoury, with its back to the trachea, I transfixed this integument, and with one movement of the knife upwards and outwards divided the integument. I did not take time to use the grooved director, as the child

seemed to be *in articulo mortis*. I pinched up the other tissues immediately over the four upper rings of the trachea, divided these as before, and then inserted the tenaculum into the lower edge of the cricoid cartilage, thus pulling up and steadying the trachea. I then, cutting from below upwards with the bistoury, divided the four upper rings of the trachea, divided the tube, and, turning the child on his side to allow of the more ready egress of any blood that might have entered the opening, easy and full respiration was directly established. He presently went into a gentle slumber, and remained in that condition for an hour, and on awaking was offered some buttermilk, which he took seemingly with zest. His natural color returned, and one might have felt flattered that recovery was certain. The wound oozed florid blood, showing the restoration of oxygen. I may here remark, that during the operation there was scarcely any hæmorrhage—only a little oozing of thick, black blood—so complete was the cyanosis. So far as I could judge, he did well until sometime in the night, when respiration became imperfect; and on examination, both lungs were hepatized. This child for some time previous had had glandular swellings of the neck, and, although buncy and stout, was not healthy. He was seized the day following the operation with convulsions, and died in thirty hours from the time the tube was inserted.

The reflections I have made about this case lead me to believe that crico-tracheotomy would have been preferable, as the child had a short, thick neck, which necessitated the making of the incision low down to the sternum, in close proximity with the apices of the lungs. This opinion is well expressed in a private letter from Dr. C. Lester Hall, of Marshall, Mo., who has had more experience in tracheotomy, I think, than any other surgeon in this part of the State. He says: "In all my cases, save one, I have performed laryngo-tracheotomy in preference to either alone. In my estimation, laryngotomy is insufficient, and tracheotomy is unnecessarily low on the neck." Dr. B. St. George

Tucker, of Marshall, used silver tubes in his cases, and so far as I can learn, with good results. Dr. Hall further states that, in his first cases he had no tubes, but used improvised contrivances of bent wires, and in one case a piece of gum catheter and nipple shield. The tube that I used in both the cases here reported, was made of hard rubber, a double canula, length $2\frac{1}{2}$ inches, diameter $\frac{1}{3}$ inch, with laryngeal opening in outer tube, very moveable on flange, weight of inner tube 18 grains, and of the outer 51 grains. My judgment was that this tube was too large for the last case, no doubt causing inflammatory action in the mucous lining of the trachea. A tube weighing one-half that of the above and a size smaller, might possibly have saved the case, but it was the only one I had at the time. I do believe that a canula exactly filling the trachea will cause severe inflammation. I much prefer one working loosely but admitting plenty of air, constructed of hard rubber, well polished on all sides, and of various sizes to fit each particular case. The weight of outer tube for a child should never be more than 25 grains, and of inner tube about 10 grains; and for a grown person, outer tube 50 grains, and inner tube 20 grains, and constructed after the manner of Tiemann's latest pattern of silver ones. Any tubes not coming up to the proper idea should be continually rejected. The rubber tubes as now made are seriously objectionable as not fitting closely at the lower end, and being clumsy and unnecessarily heavy. Strength is not a requisite, but shape, length, polish, lightness, looseness on flange, and non-conductability of temperature, are the most material essentials. I am of opinion that much of the fatality attending this operation is due to badly-constructed and badly-fitting tubes, and the want of due vigilance and care in the after-treatment. Let us take one of Tiemann's best silver canulas—length $2\frac{1}{2}$ inches, diameter $\frac{1}{3}$ inch, moveable on flange, with oval laryngeal opening in outer tube, and inner tube protruding when *in situ* the $\frac{1}{16}$ of an inch—and weigh it: Outer tube 114 grains, inner tube 63 grains, not pol-

ished on inside—a terrible objection when you try to clean it—whole weight 177 grains. What is the use in this weight? If this double canula had its walls as thin as paper, and polished on all sides and coated with something like celluloid to prevent conductability of temperature, it might have some claims on our consideration. “A single canula should never be used in any case of croup.”¹

As will be seen above, the instruments that I use in performing tracheotomy are few and simple, namely: A sharp-pointed, curved bistoury, three tenacula—one to steady the trachea and the other two to hold the edges of the external wound open and also to hold the edges of the wound in trachea open lest ends of rings get bent inwards when tube is being inserted—one grooved director, one artery forceps and one or two dressing forceps, with sponges, ligatures and tapes to tie to lateral wings of flange of canula.

The best summary of the anatomy of the parts that I have seen is given by Guersant, *op. cit.*, at page 52. The plan of operating that would appear to me to be most convenient, is to have a narrow lounge for the child to lie on, a block of wood with a pillow laid over it, the operator to sit at the right side of patient, one assistant at the head to steady it, one at the feet and one at the left side, with basins of water, sponges and towels at hand. As soon as the case is under chloroform, the integument can be pinched up, transfixed and divided, making an incision in the median line extending from the lower edge of thyroid cartilage to the third ring of the trachea, then dividing by cutting, and partly by separating with the handle of the knife, until the trachea is reached, inserting a tenaculum into the lower edge of the thyroid to steady the trachea, and dividing second and first rings of the trachea, the cricoid cartilage and crico-thyroid membrane. This will make a sufficient opening for the tube, which can be easily inserted if the wound is dilated by two tenacula or blunt hooks.

1 Guersant on Surgical Diseases of Children, p. 49.

With regard to the after-treatment, Dr. Ehrhardt says:¹ "The danger connected with the operation when performed properly is slight, and I feel certain that a greater number of those who die after tracheotomy would recover if they received better after-treatment. I attach a great deal of importance to taking out the entire canula to wash every day, and to dressing the wound properly. But the most important thing, especially in winter, is to keep the room warm, and the atmosphere loaded with moisture. As I remarked before, I prefer the hard-rubber canula, because it is lighter and more agreeable to the patient, and easier to keep clean. Those constructed by Leiter, of Vienna, are made after the manner of Lürer's silver ones; the canula being moveable on the shield, so that its position in the trachea remains the same during movements of the patient, thereby preventing the end of it from rubbing against the mucous membrane of the trachea."

I wish here to quote a few statistics and views from the literature of this subject, merely presenting a summary of the results and modes of practice adopted by some who have worked in this field.

Dr. Palvadeau² treated two cases of croup successfully by using 15 drops of liq. ferri sesquichlor. with 15 drops of water, and injecting into the larynx, by means of a hypodermic syringe, 5 or 6 drops of this solution. The needle of the syringe was introduced to the depth of 1 to 1½ centimetres above the thyroid cartilage. Two hours after the injection an emetic was given, and false membranes expelled. In Regi's case he was forced to inject several times.

Dr. A. Jacobi³ says he has tried heat and cold, and favors cold applications to the neck in croup, and that the mortality in croup rises as high as 90 to 95 per cent. under all treatment except the knife, and seldom falls below 20 per

1 *American Journal Medical Sciences*, April, 1873.

2 *L' Union Medicale*.

3 *Half-Yearly Abstract*, December, 1868.

cent. Tracheotomy, in very bad cases, saves 20 per cent. He saved 13 in 60 cases.

Dr. Krakowizer operated for croup 56 times with 16 recoveries.

Dr. Gibson¹ found no mode of treatment of much value in bad cases.

M. Isambert² operated on a child 16 months old for croup, with recovery. M. Archambaud operated on 65 cases, with 22 recoveries. M. Bourdilat operated on 16 cases, with 10 recoveries. And at the Hôpital Sainte Eugène, in seven and a half years, 813 cases were reported on with 208 recoveries.

Dr. Bell,³ of Edinburgh, operated on a child of seven months, with recovery.

Prof. Steiner⁴ in four years operated on 52 cases (33 boys and 19 girls), for croup, and 18 of them (11 boys and 7 girls) recovered.

Dr. Geo. Buchanan⁵ had 40 cases. He operated on 31, with 11 recoveries. All not operated on died.

Dr. J. H. Packard⁶ reports a case of a female child, *æt.* 2½ years: A bad case of diphtheritic croup, treated before operation with emetics of alum, syr. scillæ, etc. Performed crico-tracheotomy, using silver double canula. Child died from pyæmia, 6 days and 7 hours after operation.

Dr. R. A. Cleeman⁷ reports the case of a female child, *æt.* 4½ years: For the croup he used emetics of alum, copper, etc.; used lime water with atomizer; performed tracheotomy and employed tube for nine hours; recovered in three weeks.

Dr. Ehrhardt⁸ reports 4 cases. The first that of a male child *æt.* 4 years: pseudo-membranous croup; used before operating cupri sulp., and chlor. potass., without benefit;

1 *Glasgow Medical Journal*, January, 1864.

2 *American Journal Medical Sciences*, April, 1868.

3 *Ibid.*

4 *Ibid.*, October, 1868.

5 *Ibid.*, April, 1869.

6 *Ibid.*, January, 1870.

7 *Ibid.* April 1870.

8 *Ibid.* April 1878.

child wore canula 7 days; recovered. The second was a male child *æt.* 5 years; croup; died 5 days after operation. The third, a male child *æt.* 2 years; diphtheria; used tinct. ferri chlor., chlor. potass, etc.; died after three or four respirations through tube. Fourth case, male child *æt.* 5 years; croup; canula worn 7 days; recovered.

Dr. Rachel¹ reports three cases: The first a male child *æt.* 18 months; treatment before operation—ice to throat, injections into nose, of solutions of hyposulphite of soda and carbolic acid, and *per orem*, potass. chlor. and golden sulphuret of antimony; wore canula 9 weeks; recovered.

Dr. Bogue² operated on 15 cases of diphtheritic croup with 6 recoveries.

Dr. West³ operated on 16 cases, with 1 recovery.

M. P. Guersant⁴ operated on 300, cases but omits to inform us how many recovered; but Aitken⁵ tells us that Guersant lost most of his cases. Cruikshank saved 8 in 11 cases. Sir Wm. Jenner is of the opinion that the opening should be made through the seat of disease.

A few of the vagaries of the treatment of Diphtheria may be summed up as follows: Dusting the fauces with sulphur, swabbing with solution of nitrate of silver, giving calomel followed by the persevering use of iodide of potassium, the muriated tinct. of iron, chlorate of potash, salicylates of soda and salicylic acid, acid sulphurosum, hyposulphite of soda, the use of alcohol and carbolic acid by the atomizer, carbonate of ammonia, quinine internally, and solutions of permanganate of potash to the fauces.

Tanner⁶ asks the question "Can we do any good by tracheotomy?" and replies "This is a question the consideration of which must force itself upon every practitioner treating either a case of croup or one of diphtheria, or one of laryngitis, etc. Looking at the pathology of the disease

1 *Amer. Jour. Med, Sci.*, July 1877.

2 *Ibid*, July 1879.

3 West on Diseases of children. p. 327.

4 Guersant on Surgical diseases of children. p. 55.

5 Science and Practice of Medicine. Vol. 1 p. 446.

6 Practice of Medicine. p. 442.

now under consideration, remembering that the inflammation frequently extends into the bronchial tubes, that the serious dyspnœa for the most part arises from the albuminous exudation obstructing the trachea and bronchi, and that tracheotomy when preformed in croup has a tendency to produce bronchitis or pneumonia,—remembering these points, there appears to be much less chance of a favorable issue than may be expected from the same proceeding in laryngitis. Moreover if the sufferer appears to be dying from syncope (from some obstruction about the heart) then tracheotomy will be useless; for there has probably been a deposition in the right auricle or ventricle, and we can only trust to the administration of ammonia with other restoratives; yet granting all this, it must still be remembered that making an opening into the trachea is sometimes the only proceeding which can be of any avail to prevent immediate asphyxia; while not only does it directly prolong life by the admission of air, but it affords time for the disease to run through its several stages with more or less hope of its terminating favorably. The strong advocate for this surgical proceeding was M. Trousseau, who during four years operated 24 times in private practice, with 14 cures, and 216 times at the *Hopital des Enfants Malades* with only 47 recoveries. Many of the latter patients, however, were in a miserable condition before being seen."

After the introduction of the tube, a copious bronchorrhœa is no bad symptom; but should the tube become dry, with very little apparent secretion from the trachea, with a whistle on inspiration and expiration, there is room for serious misgivings as to the ultimate results of the case.

I have said thus much with the hope that some of the suggestions offered may be of service to those called upon to operate—either to relieve suffering or to save life; and if any of the thoughts thrown out are found to be of value I shall feel well repaid for my trouble.

A FEW SUGGESTIONS ON ANÆSTHESIA OF THE LARYNX.

BY WM. C, GLASGOW, M. D., ST. LOUIS, MO.

Read before the American Laryngological Society at New York, June, 1879.

The need of an agent by which the excessive sensibility and the spasmodic contractions of the larynx, caused by the introduction of instruments, can be controlled, has been fully experienced by every laryngeal surgeon.

The common method of deadening sensibility by the repeated introduction of the sound is tedious, both to operator and patient. Some cases can readily be operated upon with slight preparation, but still we find others where the most persistent education gives little result.

The use of the bromides—potassium, sodium and ammonium—when applied locally and taken internally, produce a certain effect in diminishing the sensibility, but their use is unsatisfactory when the production of anæsthesia of the larynx is desired. The same may be said of ice and the various astringents, as for example, tannin.

The morphia and chloroform solution of Prof. Bernatzic, given by Türk, and as used by Bruns and Schræter, does certainly produce the desired result, but as the constitutional effects of morphia are marked long before the anæsthesia of the larynx is sufficient, it cannot be called a safe remedy or one that can come into general use.

In 1871, fresh from the instruction of the Vienna school, I used this solution for the first, and I trust for the last time. The patient was a young girl, with papillomata of the larynx. I applied the solution of Bernatzic after the manner taught by Schræter. The constitutional symptoms preceded the local anæsthesia fully one and a half hours, and they became so grave during the operation that it had to be suspended and most energetic measures em-

ployed to combat the toxic effect of the drug. The local anæsthesia, however, was complete.

I have seen the morphia solution repeatedly used with great success in the Vienna clinic, and it may be possible that my patient was peculiarly susceptible to the drug; still, the method is subject to too many risks ever to become popular.

During the past winter I have been experimenting with two remedies, both of which produced in a measure, not only the desired anæsthesia, but also relief from pain. I refer to the hydrate of chloral and carbolic acid. Both remedies have been extensively used in throat practice, but as far as I am aware, they have never been suggested or used for the purpose of producing anæsthesia of the larynx.

The hydrate of chloral is decidedly inferior to the carbolic acid, and it is to this last that I would specially direct the attention of the members of this association. As typical experiments, I give the following cases, illustrative of many, on which I have founded my belief in the anæsthetic property of strong solutions of carbolic acid.

CASE I.—A case of phthisis, with an enlarged hyperæsthetic follicle in the pharynx. The pain on swallowing was so severe as almost to prevent the taking of food. The solution of carbolic acid, in volume 1 to 5 of water, was applied to the follicle. An intense burning sensation was experienced, which lasted twenty seconds. This was followed by complete relief, and the act of swallowing was performed without pain. The application was made daily, one-half hour previous to the evening meal, which could then be taken with great comfort.

CASE II.—Phthisis, with laryngeal complication. Extensive ulceration of the ary-epiglottidean fold. The ulceration was touched with a solution of carbolic acid, 1 to 8 of water. The burning sensation having passed off, it was touched with solid nitrate of silver. No pain whatever was experienced, the patient stating that he simply

felt the contact of the instrument. The ulceration was touched with solution of sulph. of copper, 20 gr. to $\bar{5}i$ of water—an application of the acid having been previously made. No pain was felt. The ulceration was touched with hydrate of chloral, 60 gr. to $\bar{5}ij$ of water. An intense burning pain followed, more severe than that of the acid, and lasting over a minute. The solution of copper was then applied. In a half hour the aching pain of the copper application was felt, which lasted some two hours.

CASE III.—Patient with follicular inflammation and enlargement of tonsil, accompanied with neuralgic pain in the part. The tonsil was touched with a solution of carbolic acid, 1 to 6. After a few seconds the burning ceased, and complete relief was felt for two hours.

CASE IV.—Patient with cockle burr in ventricle of the larynx. The mucous membrane was excessively sensitive, the slightest contact of the instrument producing violent contractions. The solution of carbolic acid was applied to the epiglottis and glottic region, after which the forceps could be readily introduced and the burr removed.

Conclusions.—1st. Carbolic acid in strong solutions produces anæsthesia of the larynx and relieves pain. The application causes an intense burning, which lasts about twenty seconds; the anæsthetic condition continues about two hours.

2d. The hydrate of chloral in strong solution applied to the mucous membrane produces anæsthesia. The application causes a severe burning pain, lasting over a minute; the anæsthesia does not continue longer than one-half hour.

3d. The strength of the solution necessary to produce anæsthesia varies somewhat in different persons.

4th. It is recommended that the weaker solution be applied first, and this can be followed by the stronger solutions. The first application is the only one causing pain.

5th. No bad results, either constitutional or local, have followed the application of strong solutions of carbolic acid.

ORIGINAL LECTURES.

SYPHILIS.¹

By P. V. SCHENCK, M. D., *Physician in Charge St. Louis Female Hospital.*

[Delivered at St. John's Hospital, November 4, 1879.]

GENTLEMEN:—I appear before you to-day at the request of your worthy Professor of Clinical Gynæcology, T. L. Papin, M. D. During my absence from the city he kindly took professional charge of the patients in the Female Hospital, and as an indication of the interest he has in you, he selected three cases which he desires to be presented for your information. Two of them are typical illustrations of secondary syphilis, and one belongs to that class known as tertiary. I am also requested to remark upon the subject of syphilis. The interesting cases which I have here, and the importance of the subject thus suggested, are such that I feel it would be doing injustice to the kindness of your teacher, and thwart, in some measure, your opportunities for observation, did I not respond to his invitation.

Syphilis is to-day the greatest scourge we have. It attacks all classes of society and every tissue of the body. Fifty-eight thousand syphilitics are treated each year at Guy's Hospital;

¹ The occasion of the publication of this lecture will be gathered from the following communication:

1601 WASHINGTON AVENUE, }
ST. LOUIS, NOV. 8, 1879. }

Dr. P. V. Schenck, Surgeon in chief Female Hospital, St. Louis, Missouri.

DEAR DOCTOR.—You were kind enough to deliver a lecture before the Missouri Medical Class on the 4th instant, on the subject of Syphilis. Since then a number of the senior members of the class have requested me to obtain the manuscript for publication. Will you do me the favor of furnishing it at your earliest convenience, that it may appear in the pages of the COURIER OF MEDICINE?

Your friend,
T. L. PAPIN.

one million five hundred thousand new cases occur during the same time in England, Scotland and Wales—and our own country is no exception to the rule. Moralists have not stayed its encroachments, and physicians are not conquering. It meets you on the street; it goes into the home; it comes to your sick-room, having appeared in the kitchen, on the finger of the cook; it hands you the viands you eat, the beverages you drink; it surrounds you in your clothing as it comes from your laundress; it enters into the inner sanctuary of domestic life and trifles with its secrets; with a mucous patch upon the lip and a scaly eruption on the hand, the husband with embraces and kisses poisons the blood of a loving wife.

Syphilis, though so protean in its form that "age cannot wither her, nor custom stale her infinite variety," has its history, its genealogy and its heraldry. Fracastor was the first to make use of the term to denote this disease. There is no ill that presents a more interesting history, and none that has wielded more or abler pens. It holds the foremost rank among the causes that brought the reform in medicine, and the overthrow of the errors of the Middle Ages. Among the non-professional world, no sickness has inspired greater terror, or left more disagreeable reflections. It is worthy your study to ascertain whether the symptoms described as suffered by David were those of syphilis—whether the stars are to be blamed—whether it was in the air, and hence the clergy suffered from it—whether the wet season of 1494 produced it—whether old Dr. Grimbée caught it in the field on a summer's afternoon. We, as Americans, are especially interested in the view first promulgated as late as 1518, by a German physician, named Schmans, that Columbus took it over. If this had been true, why did not his son Ferdinand mention the fact, when he compiled his faithful history based on his father's notes? Was not Dr. Jansen right, when he wrote, in 1680, from the West Indies, that syphilis was never on this continent until it was brought from Africa? History shows that the disease existed long before the fifteenth century. Argellata and Valescus express themselves with much precision on this point. The writings of Gordon, of Lanfranc, and more remotely of Roger and Albucasis—and still further during antiquity, it is easy to trace the disease among the Romans and Greeks. Aetius and Oribasius speak of chancres

in clear terms, and there is hardly a single species of ulceration of the genitals that has not been described by Celsus. Pliny mentions the husband and wife, despairing of cure from an eruptive disease, rushing to be drowned in Lake Como. Josephus says that Apion died from an ulcer of the genitals. The Hebrew authors state that Herod met with a similar fate. The Bishop of Palladius tells us that Heronius, having lain with an actress, was seized with an anthrax—his genitals became gangrenous—that an offensive stench came from his whole body, and he died a mass of sores. The ancient poets were not silent. Horace, with his *morbus campum*, and Juvenal, with his swollen *marisca*—all these things prove the antiquity of the disease. One thing is certain, and that is that about the same time that Columbus, by his navigation, discovered a new world, Charles VIII., claiming Naples by inheritance, discovered among his troops a disease which, in the world of medicine, has been more extensive than the new world to the geographer, and its attacks have been far more savage than the warfare of the American Indian. The origin of the name has caused much discussion. Whether its etymology proceeds from *sus* and *phileo*, or from *siphlos*, formed by contraction from *sipalos*, or whether it was named after the shepherd, Syphilus, who, having destroyed the altars of the sun for the purpose of erecting others in honor of the king Alcathoüs, his master, was punished by the gods, who inflicted on him this horrid disease.

Syphilis formerly was a term that included gonorrhœa, chancre, and what we now know as syphilis. Under Hunter's teaching the treatment was the same in all. He tested the truth of the trinity, and from the result, which produced syphilis in his own person, he satisfied the profession that all these three were akin, and for years salivation was the prominent gonorrhœal remedy; but Ricord showed the error, and contended that Hunter obtained the virus from an urethral chancre. Hunter died from aneurism of the aorta, thus giving his life in testimony of his attempt to demonstrate his belief. One hundred years ago, Stieglitz, having cured aneurismatic tumors by the use of mercurial frictions, concluded that aneurisms were almost always to be attributed to the venereal virus. This truth has lately been proven by Huebner, that syphilis leads to the degeneration of large arteries; and Welch has shown that 46 per cent. of those who die from aneurism, are syphilitic.

Now, then, thanks to Ricord, there are in syphilitic doctrinal belief no more trinitarians. But the warfare is between the dualists and unitarians. On this subject there is strictly no new idea. The present view is nothing but the growth of the past. The edifice of the venereal disease has required the space of centuries for its erection. The ancients wrote but little concerning it, because they had little idea of its cause. Avicenna taught that the too frequent passage of semen caused disease of the genitals by carrying away the humors intended to lubricate. The seminal fluid was thought to be the surplus of what they denominated the third digestion. Plato thought it originated in the brain, and ran down with the spinal marrow. The menstrual blood in woman was considered to be the same as the semen in man, and the idea was, if these two principles remained too long in their reservoirs, they became altered and turned into poisons, and affected the whole system. This is what is meant by Pliny, in his *virus vitale* and *genitale*. To the acrimony which might arise from vapors thus produced, they attributed ulcerations of the genitalia. Hippocrates mentions buboes, to appear when the menses are changed into pus and produce ulcers. From this origin of disease we have the Hebrew law, and on this account the surgeons prohibited the use of linen which had served during menstruation. The next view was proposed by Galen, that the emunctories were the cause, and as the emunctories of the liver were in the groin, and as buboes occurred there, he attributed to the liver the source of the genital ulceration. Minodoüs, not willing to surrender the seminal cause, says it is due to the corruption of several seminal fluids, mixed in the uterus of the most dissolute prostitutes. Cataneus was the first to attribute the cause to a virus acting from without, but he thought this virus was caused by the periodical discharge of women. Benedetti considered there was a virus, but it came from the humors of the blood. Paracelsus was the first who opposed and overturned the doctrine of the four humors, and he contended that debauchery alone caused syphilis, and that no one became affected with it without the influence of Venus, unless contracted through the very act of conception. The advocates of this theory gave in support of excessive coitus, that inferior animals never had it, and that it did not prevail among savage tribes. Say they, licen-

tiousness results from wealth and idleness—the savage, deprived of all, has no more time than necessary to procure for himself a precarious and uncertain nourishment; and if, after this, he has any moments of leisure, he makes use of them to taste the sweets of repose. Fernelius was the first to admit, without condition, the existence of a specific syphilitic virus. It has not been very remote since measles and scarlet fever were not distinguished, the one from the other. Typhoid and typhus fever were classed together, and it is not singular, therefore, that syphilis should be confounded in its own family. Syphilis is produced from a virus. All we practically know of this virus is from its effects. Chemists and microscopists have failed to point out individuality of character. Salisbury and others say it is a fungus. Some compare it to a yeast-plant, because there is a similarity in its action. Now, then, there is a syphilitic virus. Is that dual in its character? Is the pluralistic doctrine of Carmichael true? Are the chancre and the chancreoid both syphilitic? Do they both produce constitutional disease? Is the hard chancre the growth from the soft? Is the soft chancre, as Edward Cook has taught, the suppurative effect of the true virus being cast upon poor soil, so that the virus is washed away, and, therefore, does not produce constitutional effects? Is the soft chancre due to the inflammatory products of syphilis without the virus? Why writers should contend for duality in syphilis—why there is more likelihood to be plurality of poison in it than in small-pox, I am unable to understand. No, there is no duality—wheat will grow wheat, and nothing else. Van Buren says the soft chancre is as different from the hard, as night is from day. Bassereau, twenty odd years ago, expressed the truth when he said the soft sore contains no syphilitic germ in its cause; and Hutchinson re-echoed this fact, when, in his late address, he said all living pus is contagious, and soft chancre is due to contagion with inflammatory products. If the pus contain syphilitic virus, we have syphilis; if not, chancreoid. Hutchinson closes the argument, breaks down duality as Ricord did the trinity, and pronounces the result in three words: duality is dead.

How is this virus communicated? Direct contact is necessary—from one diseased person to another healthy one. It is essentially a virus that acts upon man, and to mankind alone belongs

the sad privilege of having the disease it produces. Anything that may be the means of carriage may communicate. Poray and Koschitz report syphilis being communicated to a number of workmen through the common employment of a ball of yarn, the threads of which were drawn through the mouth and bitten off. It may be communicated through the process of tattooing, the use of a drinking vessel, a spoon, a tobacco pipe, or a public urinal. Syphilis (though called venereal since Bethencourt so named it), is not, strictly speaking, a venereal disease—certainly not as much so as gonorrhœa—yet, in the great majority of cases, the communication takes place during sexual congress. The disease may be communicated hereditarily—from father to child, from mother to child, and it may also be communicated from child to mother.

How does it enter the system? When the virus is applied, it does not need an abraded surface; it may pass in from any part of the body. Hence, though rarely, it may follow vaccination, but there are many points from which it may enter. It is fond of mucous membranes, especially at or near where they come in contact with dermoid tissue. The cephalic portion of the penis is a favorite locality for chancre.

When does the virus enter? Immediately. When it is applied to an abraded surface, the person upon whom the abraded surface may be has syphilis at once. Efforts have been made to destroy immediately, in this as well as in other contagious diseases—as glanders, the poison of snake bites, a dissecting wound, and in vaccination. The virus goes in through the blood, and in about three weeks a chancre appears. Custom has called this primary syphilis, and the chancre a primary lesion. This is always the point of departure in constitutional syphilis. It is because the patient has syphilis that he gets a sore at the point of entrance of the poison, and a chancre never does, neither can it, appear elsewhere than at the point through which the poison entered the body. When a person, therefore, first feels the sore, he has already the poison within him. This chancre, or sore, is indurated. There is no symptom of any disease more constant than is the induration of syphilitic chancre. This is the result of a constitutional action, consequently an evidence of the contamination of the system. The chancre differs from the chancroid in its time of appearance, in its induration; it does not, unless

irritated, ulcerate; pus does not form as such; as a rule it is free from pain; there is no auto-inoculation; it commences as a chancre—as an indurated papula, not as a chancreoid, which is a pustule. There are cases in which, it is true, we may have a chancre and chancreoid together—a mixed sore. Hutchinson has pointed out how a discharge from a syphilitic individual might contain the specific virus, and thus, on the same soil, be planted the contagious pus and the syphilitic virus. He likened it to poppy seed among corn. If the corn contained the seed, poppies would grow; if not, there would be no poppies.

Does the malignity of syphilis depend upon the strength of the virus, the seat of the chancre; or the soil in which the germ is implanted? Many think the seat of inoculation has a great influence, and the disease is more severe when it enters through unnatural channels, such as when physicians become infected by digital examination; but Dr. Ory has shown that it is influenced by the soil, such as that produced by lymphatism or scrofula, and he gives, as an aphorism, “Tell me what you are, and I will tell you what degree of syphilis you will have. Show me your syphilides, and I will tell you what you are.”

After this chancre appears, we have another period in this disease, which will average about forty-six days. It extends between the appearance of the chancre and the occurrence of what custom has called secondary syphilis. The real secondary stage of this disease is that of induration of the chancre. Then we would place, first, the implantation of the virus; second, the induration; but custom, that which overrules kings, is here all powerful. Now, then, some say we have the beginning of the disease, when virus enters through the lymphatics. Virchow has gone so far as to make these commissary depots of the system the special receptacles of syphilitic matter, and that tertiary lesions are due to the syphilitic poisons stored away in these glands, and bursting from them, involving blood and tissues. But there is nothing to prove such a theory. Hutchinson has given ample evidence on the influence which syphilis has upon the lymphatic system. The investigation of Keyes shows that these glands have little, if anything, to do in the production of syphilitic anæmia—their function is at best obscure. All we know is that the lymph contained in vessels which have passed through no glands is relatively poor in corpuscles. We know

that to stop vaccine virus from entering the system you must remove it before the blood comes in contact with it, so you could scarcely stop the syphilitic poison, though you caught the parties in the act of copulation and removed the virus. If you wait until the chancre you are one train too late on this highway of disease. The virus travels by the limited express of the arterial and venous circulation, and not by the slow freight train of the lymphatics. Clerc, Hill and Diday have amply proven that if you destroy the chancre by caustic, syphilis will run its course unaltered. Next we have the fever which is either continuous or remittent, accompanied with pain in the fibroos-seous system—known professionally as osteocopic, and among the laity as breakbone. Next we have the eruption—the chancre disappearing after the eruption is well out, or, it may be, transformed, after secondary symptoms, into a mucous patch. Secondary syphilis often lasts a year, sometimes two or more. We need not go over the symptoms of general syphilis as it affects the glands, the pharynx, the skin; how disguised syphilis is known by sternal pain, as shown by Baglivi over a century ago; how syphilitic growths seldom suppurate; how all the eruptions, whether they be papular, vesicular or pustular, are known as syphilides; how persons with feeble health are more liable to have the vesicular or pustular, while those who are strong have the papular or roseola; how the erythematous and papular leave no scars, while the pustular and vesicular do; how generally the eruption is without pain or itching, how it is symmetrical, and how when it loses its symmetry it becomes tertiary, and how it ceases to be a blood disease when the symmetrical manifestations cease to be usual.

As I said before, the chancre is the starting-point of syphilis, with one exception, and that is hereditary infection. Benedetti taught that all syphilis was hereditary. Hereditary syphilis has no primary stage, because it is general from the start. The question comes, can semen be syphilitic? Will a healthy ovum become thus impregnated? Professor Beale says the bioplasm of a human spermatozoon—the smallest living particle, hardly as much as the one hundredth part of a single red corpuscle—carries the most extensive powers; powers which may reach to every tissue, and which may stamp each with unmistakable individual characteristics. Massarius

was the first to contend that the virus could extend from father to son. Notta, Berkley Hill and Oewre all contend that the mother only can inoculate offspring, but they are on that view ably opposed by Trousseau, Diday, Lee, Kassowitz and Taylor, while Professor Ercolani has minutely described a portion of a membrane of a syphilitic ovum thus affected. The subject of hereditary syphilis is one of great interest. In Vienna it has reached to one in every hundred cases born, and the mortality in such cases is from seventy-two to seventy-eight per cent. Syphilis, in its tertiary stages, is not transmissible by inheritance; for a transmission, therefore, from the mother, it is necessary that the child be born before the mother recovers from the disease. Syphilis was, in past times, supposed to modify the character of every following attack from whatever disease they suffered. Thus they had syphilitic rickets, and nearly all diseases had placed to them in nomenclature the word syphilitic as a prefix. But now we do not consider cancer or scrofula as the sequences of syphilis. They are distinct and possess no pathological relation with one another; and in regard to the so-called syphilitic phthisis, there is no such disease, further than as a complication of syphilis may coëxist with phthisis. Thoresen says, in no case could he trace the so-called syphilitic phthisis further than coëxisting disease, and he thinks that syphilis has no causal relation whatever to tuberculosis. Dr. Parry has shown that not only does the infant show the symptoms of secondary syphilis, but, as in adult life, it may be skipped and severe tertiary lesions present themselves. Syphilis is a frequent cause of abortion, by its attacking the villi of the placenta. Syphilis may in intra-uterine life produce fibro-plastic infiltrations into the liver. The bones may be affected, the nodes first affecting the lower part of the humerus. In congenital syphilis there is seldom alopecia, and the nervous system usually escapes from harm.

From whence comes the virus? From the chancre, from mucous patches, from the blood. The physiological secretions or excretions will not produce it unless the secreted mucus comes from mucous patches. Milk will not produce it unless there is a sore nipple. All primary and secondary discharges produce a primary sore. There is no tertiary lesion in which a

contagious virus exists; and the risk of contagion in syphilis appears to cease long before the risk of hereditary transmission. This is an important point in matrimony.

Is syphilis regular in all its cases? No; neither is any other disease universally regular. As we have scarlet fever without eruption, so secondary syphilis may be jumped; so also, like hasty consumption, it does not always run its slow course. I have now under my care a case of well-marked rupia, and the chancre did not appear until five weeks ago. Dr. Guibout reports such cases as malignant galloping syphilis—malignant because of the gravity of the cutaneous lesion and the condition of the patient; galloping because of the rapidity of the invasion, development, and progress of the general and local lesions.

Can we cure syphilis? Yes; there is no disease that responds as promptly to remedies, and none does so more favorably. This is, I know, opposed to the old-taught views. Their idea was, syphilis once, syphilis ever; syphilis general, syphilis universal in the man all the time he lives. Says an enthusiastic writer upon this subject in reaching this view: "I tell you that when a human being contracts syphilis he will die syphilitic, and at the day of judgment will be a syphilitic still." But reinfection, numerous reported, proves the contrary. It takes place as often in syphilis as in small-pox. Such authorities as Caspary and Gascoyen are definite on this point, and we know that a patient cannot contract a second indurated sore so long as he is under the influence of the syphilitic diathesis. Hutchinson and Diday have both reported cases in proof of this reinfection.

Now, gentlemen, let us consider the treatment of this disease. Little need be said upon it, for it is one grand disease, with one grand remedy. The old heathens, attributing the cause to the ill will of the Gods, offered up turtle doves as a propitiatory sacrifice. The ancients, accusing the semen and menstrual flow as the cause, advise venery to be used in moderation; then the liver was accused, cholagogues were given; next the humors. Next in order and prominent in use came the sudorific treatment. The names of the internal remedies are legion. Mezereon was an old remedy and the Lisbon diet drink had a great reputation; then guaiacum, a remedy, the discovery of which, has much to do

with the supposed origin of this disease in this country. The negroes in Brazil use *tayuya*. Cundurango, the supposed cure for cancer has been used. *Stillingia* or queen's delight has had its advocates. In 1819, the antiphlogistic treatment was entirely used. Dr. Boyland praised salicylic acid, Dr. Sigmund, carbolic acid, and Guillaumet, bisulphide of carbon; but one and all have proved failures in accomplishing the desired result. Syphilization by inoculating with virus from a fresh chancre has been extensively tried, especially in Norway, by Prof. Boeck, but the results have not warranted the risk. There are others in treatment doing nothing, saying it is a self limited disease. This view has been so generally proven false, that it is unnecessary even to mention it. Many treat primary syphilis by the use of cauterization, with a galvanic cautery or chemical application, or extirpation or enucleation of the chancre. This is the abortive treatment, so called. Ricord was the first great advocate of this ectrotic method—this exploded idea, that by demolishing the chancre at an early age you lay the axe at the root of the tree. In the light of to-day, induration is as much a sign of the generalization of the poison, and essentially as distinct from the origin of the disease, as if it were at the remotest extremity of the system.

Now, gentlemen, commence treatment as soon as you find a hard chancre; don't trouble about the chancre; let it alone; don't irritate it. There are but two remedies in syphilis—the one Paracelsus first brought before the profession when he did away with sudorific decoctions and said mercury was the sole and only specific; the other was introduced by Robert Williams as late as 1831, and it is the iodide of potassium. I said there were two remedies, but in reality there is only one, and that is mercury, while iodide of potassium only assists the action of it. Throw all other remedies overboard. New remedies in syphilis are a delusion. Sir Astley Cooper was wont to tell his pupils that if they were much addicted to new remedies two results would inevitably follow: "1st. they would not cure their patients; 2d. they would have no patients to cure." Therefore, always use mercury, whether in the primary indurated sore, or an affection of the inguinal glands, or if you have papular or scaly eruptions. Mercury enters in its action into every conceivable secretion and every tissue of the economy. It is an

antidote to the effects of syphilitic poison, and it is of service in controlling all its symptoms. The accumulation of vitiated imperfect cells constitutes what is known as the manifestation of syphilis; the object, therefore, of treatment is the elimination of these cells. Mercury is an active agent in bringing about fatty growths. Liegeois has shown that small doses of corrosive sublimate increase the weight of man and animals. Syphilis diminishes the red corpuscles; mercury, in small doses, increases them, and it has been clearly demonstrated by Keyes that in these doses it is a tonic. Give iodide of potassium in large doses; and under this mixed treatment it will be food and drink to your patients, and it will nourish them in their physical well-being as well as moral restitution; therefore, let me urge you that in all your giving, give mercury. How will you give it? In small doses. Don't give it, as Dr. Boyle used to do, in scruple doses of calomel. Don't produce salivation, give it in tonic doses. What preparation should you use? The proto or biniodide in $\frac{1}{8}$ — $\frac{1}{2}$ grain doses, the bichloride in $\frac{1}{20}$ grain doses, but here use your choice. Each writer has his favorite. How should you administer it? Give by stomach if possible, there is no truth in the idea that it is so changed by the stomach as to become inert. Do you want to use it hypodermically? Lewin tried this years ago, but there are so many drawbacks that the favor it then met with does not continue. Do you prefer inunction? The oleate of mercury is more elegant than the old ointment, but in any way it is an uncleanly application. Baths have been recommended by Panas, and they are especially serviceable in infantile syphilis. Or do you desire to use fumigations? Langston Parker strongly recommended them, and they have many friends to-day. In some cases, besides internal treatment in dusting the part with dry calomel as in condylomata, you will find great benefit. Now, for one moment let us see in regard to hygienic treatment. This always scrupulously follow; by it you will shorten more than half your constitutional complications. Remedies have been recommended to prevent the entrance of the poison and to destroy its vitality. The most popular one, whether of effect or not, is not for me to say, is to wash the parts before coitus with a mixture composed of chloral hydrate, salicylic acid, glycerine and sulphate of sodium.

Now then, gentlemen, you will be called upon in this latitude as

to the effect of law as a preventive remedy to the increase of syphilis. "Sensuality is not a member nor an organ, but a sense dependant upon the sexual apparatus for its fruition." The moralist's idea that syphilis is a punishment is not tenable. As far back as 1162, the police were compelled to adopt measures to diminish the existence of what they called genital leprosy. After the reign of Charlemagne similar regulations existed in most of the large cities of Europe. Doglioni says that Jane, Countess of Provence, and Queen of Two Sicilies, established in the city of Avignon, in 1347, a house of prostitutes with an ordinance that compelled them to submit, every Saturday, to an examination for the purpose of ascertaining whether they had contracted any lewd disease. We need a law; but to express the idea of sanitarians of to-day, I would say that we do not need a law for the protection of men from the diseases of women, and at the same time expose women to the diseases of men. We need no law to provide places and salaries for male inspectors and for police officers. We need no law to furnish young men as well as married men with a means of gratifying their lust with impunity. We need no law to lower the standard of public morals, to discourage matrimony, to diminish the growth of population, and to inoculate the American republic with the customs and vices of the old world.

Now let me, in conclusion, warn you always to be on the lookout for syphilitic taint. You meet it oftener and in different circles than is your wont. Many a case of so called apoplexy from alcoholism is in reality from syphilis; for drunkards are dissipated in more ways than one. Hemiplegia under the age of forty, if embolism be excluded, is presumably syphilitic.

I have now described the disease and its treatment more at length than I intended, or the moments of your professor's hour would permit; and during all this time, has it not occurred to you that I was describing an exanthema. Do you not believe, with Hutchinson, that syphilis is an exanthema, with its specific fever, its definite period of incubation and stages, its outbreak of efflorescence or exanthem? It is true, the incubation is long; but disease, like animated nature, lasts in its life in proportion to the period which it takes to reach its maturity. The insect, born full-grown, lasts but a day; man, with years in maturing, has allotted to him the three-score years and ten. The

quick-chopped wave is for short seas and inland lakes; the long wave from the shore belongs to the ocean.

Gentlemen, the disease I have described to you is an exanthema, and its so-called tertiary lesion is its sequela—a sequela which does not constitute transmissible disease, even by inheritance—a sequela as much so as inflammation of the middle ear is a sequela of scarlet fever, or paralysis a sequela of diphtheria.

CASES FROM PRACTICE.

—FROM PRIVATE PRACTICE.—

BY WILLIS P. KING, M. D., SEDALIA, MO.

TAMPONING THE VAGINA FOR CYSTITIS.

In the May number of the *COURIER*—current year—I read an article from the pen of E. C. Gehrung, M. D., of St. Louis, on “*A New Method of Treatment of Acute Cystitis in Women,*” etc., which method consists in tamponing the vagina with cotton, so as to support the posterior wall of the bladder, give rest to that organ and prevent an accumulation of urine in the sagging wall. Dr. G. deserves the thanks of the profession for his most excellent paper; and the article was most satisfactory to me, because it explained upon scientific grounds some things that I had not understood.

I have been in the habit for years, of tamponing the vagina in cystitis, because, I reasoned, in most cases (and especially in married and child-bearing women), the bladder must be interfered with by a displacement of the uterus—anteverted or ante-flexed—pressing upon the fundus of the bladder; or by a *prolapsus* dragging upon and displacing the bladder and thereby disturbing its functions. I therefore tamponed the vagina to

elevate the uterus and prevent its disturbing the bladder. But I did not, in all cases, make out either a flexion, version or prolapsus, and yet the relief afforded by tamponing was so uniformly satisfactory (always giving almost instantaneous relief) that I practiced it without being entirely satisfied in my own mind as to the whys and wherefores. So marked was the relief in all cases in fact, that I fell into the habit, when called to see a woman suffering with frequent micturition, burning and scalding pains at the neck of the bladder—of at once setting about the preparation of a tampon.

I could give many cases illustrative of the benefit to be derived from this practice, but will give but one; and since Dr. Gehrung regretted that this method of treatment excluded virgins, I will give a case occurring in an unmarried woman—a virgin.

I was called on the 6th day of July to see an unmarried woman, twenty-two years old, who had stood on her feet during almost the entire day of the 4th, and had walked to the Fair Grounds, (where the celebration was held), and back home—a distance of more than one mile—three times. On the 5th she had a feeling of weight and uneasiness about the bladder, with frequent micturition, which grew gradually worse and culminated in a chill, with increase of the bladder trouble, on the night of the 5th. I found her suffering with intense vesical tenesmus, some fever, rapid pulse, and a constant desire to micturate. Gave potass. acet. and extr. belladonnæ, with flax-seed tea, and applied hot fomentations over the region of the bladder. Was called on the morning of the 7th, and found her no better. I then determined to tampon the vagina. Turning her across the bed with hips near the edge, I introduced the index finger of the left hand, palm upwards into the vagina. Then having the mother prepare bits of cotton—one-third the size of the thumb—into firm wads, I introduced them one by one with uterine dressing forceps, making the greatest pressure upon the palmar surface of the finger in the vagina, and with that finger packed the wads of cotton around the cervix until I filled the vagina. She was asleep in less than twenty minutes. I did this once a day for three days, and afterwards had no trouble in controlling the difficulty.

The objection to using this method in the treatment of vir-

gins, is the fear of rupturing that insignificant little membrane that everybody seems so sensitive about—the hymen. I did not rupture the hymen in this case; but, suppose that it had been necessary? Must a woman's future health and happiness be sacrificed to save a thin delicate membrane that no one needs and nobody uses?

INTESTINAL IMPACTION.

I saw Mrs. G. June 20, 1879, the history of whose case was as follows:—Twenty-two years old, married, had always had pretty good health until the birth of her child in St. Louis, about the last of April. Since that time has not been out of bed. She is tolerably well nourished, does not suffer particularly, but feels bad and cannot stand on the left leg. There is a feeling of tingling and numbness in the limb, and has been since the birth of her child. When she attempts to stand, the unpleasant tingling sensation is increased, and the knee gives way. Her appetite is rather poor; bowels disposed to be constipated, but move with the assistance of a mild purgative. The doctor who waited on her in her confinement and afterwards, had said that her trouble was not *phlegmasia dolens*, but did not say what it was. She was brought here, after much trouble and some suffering, in order to be under my care. The leg looked natural, except a slight œdema about the foot and ankle, which I attributed to disuse of the limb. I was puzzled. After seeing the case two or three times without making up my mind as to what the trouble was, I finally came to the conclusion that there was an impaction of hard fecal matter somewhere in the intestinal tract. This conclusion was based partly on the fact that there was slight tenderness all over the lower part of the abdomen (although I could not locate the mass), and partly upon the fact that I could not ascertain that it was anything else. I had examined the uterus and found involution complete, the organ in its normal position, with no tenderness and no discharge of any kind. I determined to sweep the alimentary canal with a brisk and powerful purgative, and therefore, gave calomel in combination with some of the vegetable cathartics. The first results confirmed my diagnosis. A large mass of hard, dry fecal matter was passed, falling into the chamber, as she expressed it,

"like clods of dry dirt." The leg was at once relieved of all the unpleasant symptoms, she was able to sit up and walk about the room, and within a few days was able to do some sewing. After being up for two or three days she was taken down with symptoms of dysentery, passing frequent, small stools of mucus mixed with a grayish faecal matter, attended with constant burning pain at the anus and in the rectum.

Fearing that I had overpurged in moving the impaction, or that its simple removal had produced sufficient irritation to cause dysentery, I attempted to check the difficulty with opiates and dieting, but without success as the severe symptoms persistently returned whenever she was from under the influence of opium. This state of things continued for several days. On the morning of July 4th the bowels became tympanitic, and by night she was enormously swollen, and in spite of the opiates was in great distress. Her temperature rose to 103°, pulse 140 per minute, and she was bathed from head to foot in a profuse, exhausting perspiration. Carefully examining the discharges I found small bits which seemed to have been *broken off* from a larger mass. I felt that I must do something or lose my patient. I determined to give drachm doses of magnes. sulph. every hour. Beginning at 9 P. M. she took four doses, and at 1 A. M. on the morning of the 5th she moved down a mass which she could not pass beyond the sphincter. With this feculent collection she struggled until 5 o'clock, when I was awakened, and with the aid of my "educated forefinger," and a spoon handle, I removed a mass of dry hard faecal matter, containing lumps that were difficult to break even with the assistance of the spoon handle. The relief afforded was instantaneous and complete. She got well without another dose of anything. *Where was the impaction?*

FISSURED NIPPLES.

Of all the small things which worry a practitioner of medicine, this apparently little ailment has been the bugbear of my professional life. Apparently so insignificant, and yet so painful, so persistent and intractable, that I have often felt that I would give a good, round sum for what I could really call a remedy, and have always wished that I may never see another case of it.

Do what we will the child must suck (children do not “nurse” in Sedalia, they *suck*) or the milk must be drawn with a breast pump, and, in either case the fissure is torn open and bleeds and our case is as bad as ever. I have tried everything—tr. benzoin, argent. nitras, collodion, and have seen my work go down to naught at the hands (or mouth rather) of an infant, only one week old. I found myself with a case of this kind on my hands in the month of August of this year. Two or three times the case was reported to me as cured, and as often an “adverse report” had been sent in the next day. On one of these occasions I walked into my private office, trying to think of something, when my eyes fell on a bottle of “Prof. Callen’s Brazilian Gum.” It came to me like a revelation. I had bought the stuff to mend a Politzer’s bag. It is pure gum in solution (in naphtha, I think), and is of about the consistency of thick mucilage. When exposed to the air the solvent evaporates and leaves the elastic rubber adhering to whatever it has been applied. I knew it would do. I went at once to the patient and applied it with a camel’s hair pencil all over the nipple (except the milk ducts) and over the areola around the nipple. It remained on three days, and came off leaving the parts entirely healed. There were one or two slight fissures afterwards, but the patient applied the remedy without sending for me and had no further trouble. I have tried it in one other case with equal success. I also applied it to a largely abraded surface on a man’s face, who had been thrown from a buggy and scraped the side of his face on the ground. The remedy adhered beautifully, excluding the air, and when it came off, rubber, scab and all came together, leaving a perfectly healed surface behind. This preparation is usually kept by dealers in leather supplies.

Mr. Editor: All the above are *successful* cases. “Let the dead bury the dead.”

[Cobblers, for mending shoes with what they call the “seamless patch,” use a kind of cement, made by dissolving gutta percha in benzine or bisulphide or carbon. It is found in the “leather and findings” stores, put up in two-oz. bottles, retailing at 15 cents. The odor is disagreeable, but if bisulphide of carbon is the solvent used, it may be deodorized by tinct. iod., $\frac{1}{4}$ part, or it may be scented with mint or bugamont. Chloroform is also a solvent for gutta percha. This solution has been

used to retain the edges of incised wounds in apposition; also to protect abraded skin against mechanical injury or the absorption of poisons.

The dermatologists have of late been very largely using rubber bandages in the treatment of eczema and other skin diseases, and it occurred to us that this solution of gum would be an excellent substitute, and much more convenient. On investigation, we find it has been recommended in the treatment of lepra, psoriasis, small-pox and erysipelas. We believe Dr. King is the first to recommend it for sore nipples.—ED.]

LITHOTOMY.

BY D. B. FOWLER, M. D., MEMPHIS, MO.

February 7th, 1878, I was called about twelve miles from the city to see Levi Rhodes, who was said to have a stone in the bladder. I found a man about fifty-six years old, extremely emaciated and worn out with long suffering and anxiety, poor and almost without the necessities of life. His suffering was so great on an effort to void his urine, that the blood gushed from his nose in a stream, and his cries for relief were truly distressing.

Three surgeons had sounded him before, and had found a stone, but were all unwilling to operate on account of the presence of a serious complication, hæmorrhoids—the most aggravated case of hæmorrhoids that I ever saw. He had also a chronic cystitis that had existed for three years. On a positive promise that I would operate upon him in case I should find a stone, he finally allowed me to sound him. I had no difficulty in locating the stone just behind the prostate gland, absolutely stopping the flow of urine except what dribbled away when he was making no effort to urinate. I set before him the dangers of the operation, especially in view of the complications, telling him that the result was likely to be fatal; yet his suffering had been so severe and so prolonged that he decided at once to undergo the operation, and smiled at the prospect of relief either in recovery or death.

I caused him to be removed to the city, and put him under treatment with a view to improving his condition before the

operation. After a month's delay, his condition being no better, I concluded to operate at once. Drs. Monroe, Murphy, Gunn, Parish, Moore and Brunbaugh were present at the operation.

The patient being fully under the influence of ether (Squibb's) and placed in the usual position, I injected the bladder, which was very small, and the walls much thickened. I made semilunar incisions across the perineum, and, with the necessary dissection, opened the urethra. I then introduced Dupuytren's lithotome caché, with its concavity downwards, following the groove in the staff without the slightest difficulty, and springing the blades, at one cut made an opening large enough to permit of the removal of a mass of concrete matter measuring one and a half by two and a half inches, of about the consistency of putty; which, after being exposed to the air, rapidly hardened and presented all the appearance of sand or silicate of alumina. This was readily removed, and the bladder thoroughly washed out. The wound was closed by sutures, a drainage tube inserted and the patient placed in bed. Brandy was administered, also an opiate, and that was the end of the old man's suffering. I think I never saw a more rapid recovery, and to-day I have the patient's gratitude, and the assurance that the result has justified what was considered a reckless operation, in giving the patient the benefit of his only chance of relief. It is true that the age of the patient, the hæmorrhoidal complication and his extreme emaciation, were features in the case which would make one hesitate to perform such an operation, but it was the only possible chance for relief to the patient, and in such cases the duty of the surgeon is plain. It is well to guard our reputations carefully, but over-cautiousness is as serious a fault in a surgeon as over-boldness.

ADENOID TUMOR OF THE NECK ; CURED BY THE INTERNAL USE OF ARSENIC.

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By A. OSTERTAG, M. D., SOUTH ST. LOUIS, MO.

Mr. U., aged 42 years, teacher in a country school, consulted me about the middle of July, 1879, in regard to a tumor in front of his neck, which he first noticed last winter, and which had given him, for some time, severe pain in his chest

nape of the neck and shoulder. The tumor was of the size of a small hen's egg, of considerable hardness, and situated on the left side of the neck, at the sternal origin of the clavicular portion of the sterno-cleido-mastoid muscle, in which it seemed to be imbedded, as it only allowed of slight movement. As the patient had suffered for years from chronic malarial fever, which had resisted all treatment, liver and spleen showing enlargement, appetite very poor, but figure still well nourished, nights made restless by neuralgic pains, the treatment first instituted, consisted of large doses of iodoform and iron, according to the following formula:

R. Iodoformi.	
Ferri redacti, āā.	ʒi.
Resin. Podophylli,	gr. iss.
Ext. Hyoseyami,	gr. xxx.

M. Ft. Pilulas. No. xxx, S. One pill three times a day, after meals.

Externally, tinctura iod. was applied twice a day. Under this treatment the general condition improved rapidly; the chills were stopped, but the size of the tumor was not affected in the slightest degree; the pain in the pneumo-gastric and spinal accessory nerves was considerably relieved, as long as he used the remedies with perseverance.

Seeing the obstinacy of the growth, and his impatience in wishing to get rid of the constant wear, caused by the severe neuralgic pains and the ensuing sleeplessness, and suspecting the tumor to be of a malignant nature, I told the patient, if internal medication was not successful in removing the tumor, his only chance would lie in a surgical operation, before it had implicated more of the neighboring lymphatic glands and affected his system at large. So he consented to further treatment, and in regard to the negative results of iodine treatment, I decided to try a thorough arsenical course. For this purpose a solution of bromide of arsenic was given (prepared by adding 2 drachms of pure bromine to ʒxii of Fowler's Solution) in the following formula:

R. Solut. bromid. arsen.	
F. Ext. gentianæ comp. āā.	ʒss.
Tinct. opii,	gtts xxiv.

S. Dose, ten to fifteen drops in water, three times a day, after meals.

This course, even after the first bottle was used, had effected so much improvement and diminution in the size of the tumor that after the use of a second bottle the growth had entirely disappeared, and up to this date the patient has had no return of it.

Although the diagnosis of this case is not confirmed by microscopic examination, still the clinical history and therapeutical results point clearly to the diagnosis: "Hard malignant lymphoma." The description of these tumors, given by Prof. Billroth, in his surgical Pathology (8th German edition) and by Birch-Hirschfeldt, in Ziemssen's Cyclopædia, seems to allow only this interpretation. Both authors cite cases which were treated and rapidly benefited by arsenic. As late literature does not exhibit many instances of cure of these tumors by internal medication, as most cases come in the hands of surgeons in their advanced stages—already beyond the hope to be influenced by medicines—in which stages, according to the above-mentioned authorities, operations only can be of temporary benefit, and prognosis is extremely unfavorable, this case might not be without value, in drawing the attention of the profession to the above-mentioned remedy, in the treatment of the more recent cases.

TRANSLATIONS.

From the French, by DR. E. M. NELSON.

ABLATION OF THE UTERUS—CONTINUATION OF MENSTRUATION.

M. Tillaux operated on April 5th. He opened the abdomen by a long incision, destroyed some adhesions, cut the two tubes after ligating them with catgut, leaving the two ovaries *in situ*, and extirpated nearly the whole uterus. The patient recovered. Three months after the operation, the courses reappeared, and have shown themselves regularly and with sufficient abundance

at the four menstrual epochs which have followed their first appearance. This fact shows that under the influence of simple ovarian irritation and without the intervention of the tubes, the courses may occur. It is probable that the small portion of the neck, which has remained, is the seat of a hyperæmia sufficient to furnish the menstrual blood.

What becomes of the Graafian vesicles after the rupture in this woman? This is difficult to answer; it is probable that the vesicles remain stationary, or are resorbed by the surrounding tissue. In either case this fact adds support to the theory which considers the menstrual flow as an ultimate phenomenon accidental in reality, indicating the last period of the maturity of the ovum with which it has only indirect relations. Numerous facts reported during these last years even permit the supposition that in the human species, which enjoys a permanent aptitude for sexual relations, the phenomena of the maturation and descent of the ovum are not invariably determined by the menstrual period.—*A. Lutaud in Gazette Hebdomad. Oct. 1, 1879,*

An analogous fact, more pathological than physiological, may be added to the preceding, under color of curiosity, among these obscure phenomena of hæmorrhagic molimen. Nature had produced the equivalent of that which art has done, in a uterus affected with myomata, the cavity of the body existed no more, the uterine orifice was obliterated, the cervical cavity had disappeared, and hæmorrhages were produced, which ended by carrying off the patient. In both cases the sanguineous flow could be attributed only to the vaginal part of the neck.

I give the principal points of this observation, reported by M. Laboulbène in the *Gazette Medicale de Paris*, 1869, p. 183, under the title: *Note upon a voluminous hystero-fibroma, etc.* It relates to a woman of twenty-eight years whose abdomen was greatly enlarged by uterine fibroid masses, and whom abundant losses occurring for two months had thrown into a profound state of anæmia. These hæmorrhages aggravated this state during the month that she was in the hospital. The tumor extracted at the autopsy, with the uterus, weighed 5.60 kilogrammes (12.34 lbs). It was composed of knobbed masses, two of which being superposed, having about the volume of the first, reached almost to the epigastrium. The uterine cavity had

wholly disappeared; the uterine orifice was closed; the cervical cavity existed no more. No portion of the vagina was eroded; the external surface of the neck was firm, smooth, not ecchymosed. It is evident that the blood could not come from the cervico-uterine cavity, since it was completely obliterated. It is necessary to suppose that it escaped from vessels of the external surface of the neck of the vagina, although it was impossible to determine the least trace of the rupture.—*O. Saint-Vel. Gazette Hebdom.. Oct. 24, 1879.*

PREMATURE ESCAPE OF AMNIOTIC FLUID.

Dr. Poulet, of Lyons, suggests the following explanation of those cases where there are repeated discharges of amniotic fluid, commencing about the fifth month of pregnancy:

“The ovum, before any dilatation of the neck, is everywhere applied to the uterine wall; even a pressure upon the abdominal wall could with difficulty produce its rupture; an effort of the woman is probably never sufficient to rupture it; so, for example, the ovum resists very well, when the neck is not dilated, the most violent effort of defecation.

“Let us see now how the active movements of the fœtus act.

“When these movements become strong, a pressure of the head or of the limbs, a kick for example, however strong it may be, is still powerless to tear the membranes always applied to the uterine walls. But will it be the same, if the infant, instead of pressing outward against the amnios, should draw toward it a point of the membrane? Evidently not. This traction would remove the delicate wall of the ovum from its support, the uterus; the slight adhesions which exist at this point would be easily and insensibly ruptured. Between the ovum and the uterus so separated (this hypothesis being admitted) would then be produced a little flow of serosity and the membranes, instead of being applied to a resisting support, would be floating between two liquids; if the tractions acting upon the membranes increased in frequency or intensity, the point drawn upon would be torn; it is apparent that even without new traction, a kick of the infant upon the floating part of the membranes could effect the rupture.

"But how is it that the fœtus draws to it a point of the ovum? Very simply; if the implantation (of the cord) is membranous, if a coil passes around the neck of the infant and a limb strikes upon the tense cord.

"Shortness of the cord itself may facilitate these tractions; in these cases the active movements of the infant are what tear the ovum; and if this does not go so far as to the rupture of the ovum, there may be there the separation of a certain extent of its surface, which would explain the formation of the cavity where the false waters are secreted, compatible these, with the favorable termination of the pregnancy.

"In the cases of rupture of the ovum, a certain quantity of liquid flows out, then the floating parts of the ovum become again applied to the uterus, and forming a valve, prevent the flow of liquid until some new traction of the cord opens the valve and produces another escape of liquid. These are the repeated expulsions of a certain quantity of water, although there often remains enough to allow the pregnancy to progress if the cord itself does not become engaged in the neck. This explanation shows why this accident does not occur before five months of pregnancy, the movements of the fœtus not having sufficient energy before that term."

He recommends in such cases that the patient be strictly confined to bed until the period of viability of the child is reached, in order that it may be saved, if possible. He reports one case where such a patient after keeping her bed for two months, was delivered of a healthy, living child.—*Annal. de Gynecol. Oct.*, 1879.

RESEARCHES UPON THE TEMPERATURE OF THE HUMAN BODY DURING REST IN BED.

Note of M. L. A. Bonnal.

The experiments of the author, to the number of more than a thousand, have led to the following conclusions:

1. The variations of temperature of the exterior atmosphere influence, very appreciably, the warmth of a subject placed in an apartment, although the temperature of this last has not va-

ried. The action of the surrounding medium is limited to modifying the peripheral temperature of the body.

2. In every season the minimum temperature observed is between midnight and three o'clock in the morning. (At Nice, this minimum, in winter, is rarely lower than $36^{\circ},3$.) In autumn, at Paris and Milan, after the nocturnal temperature has fallen during several days to zero [freezing point] I have found a minimum of $36^{\circ},05$. In summer, when the temperature is elevated during several days, the minimum is, in general, from $36^{\circ},4$ to $36^{\circ},5$. The nocturnal sinking is not produced so distinctly if, instead of being in bed, one remains sitting to read or write.

3. Starting from three o'clock in the morning, the temperature rises steadily till nine o'clock in the morning, when it reaches $36^{\circ},7$, and $36^{\circ},9$ in winter, and $36^{\circ},9$ or $37^{\circ},35$ in summer, even when at eight o'clock it was only $36^{\circ},3$, as I have determined it in autumn, in Paris, the night temperature being near zero.

4. In every season, the maximum is found between two and four o'clock in the evening. In summer, however, when the atmospheric temperature is very elevated during one or two weeks, the appearance of the maximum may be deferred even to eight o'clock in the evening.

5. In winter, from nine o'clock in the morning to nine in the evening, the variations of the temperature do not exceed 3-10 or 4-10 of a degree centigrade. In summer, in the same period, the figures of oscillation may reach 6-10 of a degree.

6. At nine o'clock in the evening, the temperature is, in general, about $36^{\circ},7$, $36^{\circ},9$ in winter, and about 37° , $37^{\circ},5$ in summer.

7. Starting from nine in the evening, the temperature falls slowly until it has attained the minimum. However, towards midnight, the lowering is very rapid, especially when the temperature of the exterior air is low.

From the French by A. DERIVAUX, M. D.

TREATMENT OF POST-PARTUM HÆMORRHAGE—A CLINICAL LECTURE—LUCAS-CHAMPIONNIERE.

In post-partum hæmorrhage plugging is seldom advised, and it is strongly deprecated by some accoucheurs who are bold

enough to recommend intra-uterine injections of perchloride of iron, or some other equally violent process. Plugging seems to have been proscribed on the plea of uselessness, as also on account of accidents that might follow, such as retention of part of the plug in the uterine cavity.

There is, for all that, a very efficacious plan of plugging, entirely devoid of danger and serviceable whenever, from absence of uterine contraction after delivery, hæmorrhage is threatened. An assistant is instructed to compress the womb through the abdominal walls. Meanwhile a plug of lint or cotton wadding well soaked with carbolized water 1-40 in strength, is inserted into the vagina, and applied to the os, and on top of this one or two more pellets, taking care not to fill up the vagina, but merely to pad well its fundus and the neck of the womb. An important point is not to grease the plug in any way whatever.

Now the hand that has inserted the plug maintains a strong compression through it on the neck of the womb, while this is grasped through the abdominal walls by the free hand of the operator, or again by the hands of an assistant. While this is being done, ergot is exhibited either internally or subcutaneously.

This plan has marked advantages: a thorough compression of the womb between the two hands, and the direct excitation of the neck by the plug, and the formation of a clot on the plug, thereby checking the flow of blood until the ergot has had time to act. The plug is to be removed after twelve or twenty-four hours, according to the emergencies of the case; the vulva must then be covered, as is usually done here, with a rag dipped in the same carbolized water.

I have so far always been successful by this method in private practice; when no lint was at hand I have plugged with a handkerchief. My pupils and the midwives of my wards have been using my method now for two years, always with good results and without any inconvenience when due precautions have been taken. I revert again to the necessity of not greasing the plug, it being an essential condition for the formation of a clot.—*Jour. de Med. et de Chirurg. prat.* November 1879.

HOME-MADE PESSARIES.

The *Gazette Hebdomadaire* reports from the *Montpelier Medical*, of June, 1879, the very curious history of two women, affected with prolapsus uteri, who managed to remedy their infirmity by squeezing into the vagina an enormous ball of waxed cotton thread. One, sixty years old, had worn it for fifteen years; the other, forty-nine years old, had worn it for eight years, during which time she became pregnant, removed the ball herself when labor set in, and replaced it after delivery. In neither was coitus or the outflow of the menstruæ prevented, and everything went on well until severe symptoms of intestinal occlusion set in, and led the attendant physician to the discovery of these strange pessaries. They had swollen to such an extent, and contracted such numerous adhesions that the obstetrical forceps had to be brought into play for their removal. Both patients recovered, with an immediate return of the prolapsus in one case, while in the other the womb was retroflected and did not come down.

MONTHLY REPORT ON THE PROGRESS OF THERAPEUTICS.

Ergot in Acute Dysentery.—DR. GEO. L. ANDREW, of Laporte, Ind., reports the case of a man aged 18, laboring under a severe acute dysentery, who was treated with ordinary remedies, without relief from suffering, or any improvement in the symptoms. He was given 2 drams fluid extract of ergot, every three hours, with speedy relief from tormina, tenesmus and bloody discharges.—*American Practitioner*, November, 1879.

Treatment of Biliary Calculi.—DR. T. H. BUCKLER says: I have seen a number of cases of gall-stone, all of which, except one, were successfully treated with chloroform to dissolve the cholesterine existing in the gall-bladder at the time, and causing paroxysms of pain, amounting to positive anguish, for the relief

of which chloroform, the great anæsthetic, is also the best agent. After-existing calculi have been dissolved, then, to overcome the cholesteric diathesis and prevent the formation of other stones, the patients were all kept on teaspoonful doses, thrice daily, of the succinate of iron for the period of four to six months. The large majority of patients can not take, by the stomach, more than ten to fifteen drops of chloroform every four or six hours, in which cases it should be continued 15 or 20 days. He advises the succinate of iron both as a solvent of gall-stones and of cholesteric fat, whether in the coats of arteries, or elsewhere.—*Boston Med. and Surg. Journal.*

Salicylic Acid and Salicylate of Soda in Sciatica and Neuralgia.—DR. S. L. ABBOT, *Boston Med. and Surg. J'l*, gives an account of 3 cases of sciatica and 3 of acute facial neuralgia, in which salicylic acid and salicylate of soda were employed with success. He says in conclusion: "These cases seem to show that we have in salicylic acid and its compounds, as reliable a remedy in acute neuralgia as in acute rheumatism. Perhaps they indicate a closer affinity between the diseases than has generally been suspected. Two of the patients had bad attacks of rheumatism. The cases, with the exception of the third case of sciatica, were all severe, and nothing could be more satisfactory than the very prompt and efficient relief which followed the exhibition of the remedy." He thinks that cases of a more chronic character, as in rheumatism, will not be so amenable to this treatment.—*Nl Nerv. and Mental Dis.* October, 1879.

Hypodermic Injection of Fowler's Solution in Chorea of Children.—The treatment of DR. PERROUD of Lyons, France, is to inject, hypodermically, four or five drops of Fowler's solution of arsenic, every two or three days. He thinks the gastric disturbances, so frequent when the medicine is given by the stomach, are avoided; that the effects of the remedy are more quickly attained and that the smaller doses can be given at longer intervals, securing the same results. The irritation, at the point of injection, is trifling; but sometimes, owing to an idiosyncrasy, the arsenic is not tolerated and symptoms of arsenical poisoning are observed. These cases are rare, especially in children, who, as a rule, bear arsenic very well.—*Thesis before the Lyons Medical Society.*

Bismuth in Dysentery.—HOUGHTON recommends—

R. Bismuth. subnitratis,
Pulv. Acaciæ, āā ʒss,
Aquæ Frigidæ, ʒii, M.

For a rectal injection, one to three times daily. This relieves the tenesmus and tormina in a very short time. In addition, he gives ipecac, ʒi, to ʒi, at intervals of eight to twelve hours, when the rectal symptoms are urgent. He has tried this treatment successfully in hundreds of cases.—*London Lancet*, September, 1879.

New Method of Plugging the Posterior Nares.—DR. J. M. SPEAR, of Highland, Ohio, says: Probably the best device for the mode of operating, to which I refer, consists of a piece of round, fine-linked gold chain, slightly flexible, and smooth, about one-tenth of an inch in diameter, and one inch or more in length, attached by one end to a fine waxed silk cord, a foot or more long. If such a chain is not procurable, a short strand of metallic, cylindrical beads, or bird-shot, compressed on a cord, or small strips of sheet lead, wrapped on a cord, might answer the purpose, the essential qualities of a nasal gravitator being smallness, smoothness, heft and slight flexibility. After providing an instrument, which can generally be done at any farmhouse, the patient is then laid upon the back, the floor of the nose brought as nearly vertical as may be, and the loaded end of the gravitator lowered into the pharynx. Its arrival there will generally be announced by coughing, retching or clearing up of the throat. The patient then being brought to an erect position easily hawks up the weight and carries it forward on the tongue, when the operation of plugging may be proceeded with as usual.—*Philadelphia Medical and Surgical Reporter*, November, 1879.

Capillary Punctures in Ascites.—M. HEMOT, of Reims, read, at the French Association, an interesting communication on this subject. After having drawn attention to the danger which attends the practice of evacuating suddenly, in a case of ascites, a large quantity of liquid, and to the accidents to which this apparently mild operation frequently gives rise, he pointed out how little harm could result in such cases from capillary punctures. He quoted several cases, in which five or six punctures, made at certain intervals from each other, gave the desired re-

sult. The operation is extremely simple ; the instruments used are merely a small trocar, such as every surgeon carries in his pocket book, to which a rubber tube is adapted. Another important point in this method is that the abdominal walls do not lose their elasticity, which would be the case if the fluid were allowed to escape rapidly. In this way the rapid reproduction of the fluid is avoided.—*Philadelphia Medical and Surgical Reporter*, November, 1879.

Iodoform in the Treatment of Chronic Ulcer.—DR. EVANS treated a foul ulcer of the leg, of thirty years standing, in the following way: "I washed it with a solution of carbolic acid (1—20), then dressed it with a solution (1—40). This I did daily for about a fortnight, and the ulcer became perfectly sweet and healthy-looking ; but if left for single a day without dressing, the granulations became greenish, and the fetid odor returned. I then tried an ointment of iodoform, according to the formula used by Dr. Tatum for prurigo, *i. e.*, iodoform 3i, to 3i of ointment. I spread a thin layer of the ointment on a piece of lint cut to the size and shape of the ulcer ; this I placed on the ulcer, and over it a layer of carbolized tow—as an antiseptic precaution—then bandaged the leg firmly, and left my patient for a week without re-dressing, and to my satisfaction at the end of the week found the ulcer in a nice healing condition. Since then, I have continued the treatment with satisfactory results. I have also tried it in other cases with like results.—*Glasgow Medical Journal*, October, 1879.

Chloral in Diphtheria.—ROKITANSKY, of Innsbruk, has used a 50 per cent. solution of chloral as a local application to the membrane, by hair pencil, every half hour. Pain is seldom severe, but salivation is intense. In an hour and a half pieces of membrane come away on the brush ; and at the end of two to four days the surface of the wound has granulated. As the surface improves in appearance the solution is gradually diluted. From Morrell Mackenzie's monograph on diphtheria, it appears that chloral syrup, 25 grains to the ounce, ranks high in his esteem as a local application. "It rapidly gets rid of the fetor and it is beautiful to see the membrane loosen and come away, leaving a healthy surface underneath."—*Canada Lancet*, November, 1879.

Treatment of Typhoid Fever in the Philadelphia Hospitals.—The remedies that have been found in the *University Hospital* to exert the most beneficial influences on the intestinal catarrh are, first of all, nitrate of silver, and next subnitrate of bismuth and carbolic acid. The carbolic acid is used when there is any putrid element in the disease, in preference to the nitrate of silver. When the stools are large and watery, opium is combined with the silver; when there is tendency to constipation, belladonna replaces the opium. The diet is carefully regulated. Milk is found to be the best diet, and is combined with water or lime-water as the case requires. When the bowels are torpid, beef or mutton broth is given alternately with the milk. When the fever runs high, all the food the patient can take is given, care being taken not to irritate the already inflamed mucous membrane. The poison in the blood is controlled by quinia and nitro-muriatic or salicylic acids, the latter being preferred when there is some putrid discharge joined with high fever. About twelve grains of quinia are given in the twenty-four hours. The temperature is kept down by preventive measures, rather than by cold baths; but when it runs up high, in spite of drugs, sponging with a mixture of water and bay rum, every two hours, is resorted to. When the temperature goes as high as 104 or 105, the cold wet sheet is used; and when life is endangered from fever, the cool bath is employed. The use of stimulants is not regarded as necessary, simply because the patient has fever, but they are employed for the relief of certain symptoms, such as ataxic nervous disturbances, circulatory disorders and profound asthenia. The mild form, as wine whey, is preferred. Hæmorrhage is controlled by opium, ergot and lead. Peritonitis is treated by antiphlogistics, sedatives and perfect rest, with a diet that leaves no irritating residuum in the bowels. True perforation is regarded as beyond the aid of medical skill.

In the *German Hospital*, quinine (in heroic doses), after a fair trial, has been found to do very little if any good. It has not even been satisfactorily demonstrated that it reduces the temperature, while it appeared to increase the diarrhœa and headache; and in two cases it produced total deafness for two weeks. Sponging with vinegar and water, has been found to act well, and the patient is given ice to suck and the ice-cap is

applied. Oil of turpentine, in twenty-drop doses every hour or two is found to act well, where there is dry tongue, and tympanitis. The mineral acids are found to be of great service in keeping the stomach in good order, stimulating appetite and relieving the thirst. For the relief of wild delirium, hypodermic injection of $\frac{1}{3}$ to $\frac{1}{2}$ grain of morphine acts well.

In the *Episcopal Hospital*, the temperature is reduced and the heart strengthened by fifteen-drop doses of digitalis and two-grain doses of quinine, every three hours. Stimulants are only employed in the severer cases. Dilute muriatic acid, in fifteen-drop doses, every three hours, and lately, the nitrate of silver has been used, in the second week of the disease.

In the *Pennsylvania Hospital*, the routine treatment is ten grains of quinine daily; ten drops of muriatic acid every three hours, and sponging all over with cold water morning and evening. The diet is carefully regulated, consisting chiefly of milk and beef-tea. When the first sound of the heart is weak, stimulants are given, or if they are already being taken, the dose is increased.—*New York Medical Record*, November 15th, 1879.

Iodine in Malarial Fevers.—ANDERSON says he prescribes iodine in cases of intermittent fever. "Up to the present time I have treated at least three hundred cases in this manner, and with almost invariable success. As there were no changes in the diet or other hygienic conditions of the patients, there was little room left for doubt that the iodine and the rapid improvement stood in the relation of cause and effect.

"The time required to effect a cure naturally varied. In a large number there was no paroxysm after the first dose; frequently it took two or three days before any mitigation was observed. While it was seldom necessary to repeat the usual two or three ounce mixture, it occasionally happened that the fever returned when the medicine was omitted for a few days, but was again promptly subdued on a renewal of the iodine. That there is such a thing as a permanent cure for this subtle and Protean disease, even with iodine, I very much doubt; and no educated physician would promise it under any form of treatment. As to the question of relapse, I believe there is less chance of a return than after treatment by quinia. I have had several patients return the following year for their iodine

prescription, which they remembered as having given them prompt relief; but this experience is doubtless common to all forms of treatment.

"Children take it readily—that is, where they will take anything readily. I have given it to children of all ages, and have not had a fraction of the trouble I formally experienced with quinia.

"For adults I usually prescribed twelve to fifteen minims of the compound tincture of Iodine, [U. S. P.] freely diluted, to be taken three times a day, after food, and regardless of pyrexia. From five to ten minims usually sufficed for children. Larger doses were frequently employed in severe cases, without producing any unpleasant results. My usual prescription in private practice is as follows: Take of tincture of iodine comp., 6 drachms; syrup of acacia, 18 drachms. Mix. Dose, teaspoonful in wineglassful of water three times a day, after food.

"Why iodine acts so beneficially in malarial fevers must remain a speculative question till we know something more definite of the disease itself. The drugs usually employed in this disease have marked antiseptic properties, and this is a prominent trait in iodine. Its special stimulant action on the entire glandular system is generally accepted, and it has long been employed to reduce enlarged spleen—so common a feature in malarial disease. Its high diffusive power causes it to enter the circulation very rapidly, and it is as quickly eliminated in the secretions.—*Proc's Kings Co. Med. Soc. July, '79.*

Gurgun Balsam in Blennorrhagia and Vaginitis.—M. VIDAL administers gurgun balsam in doses rarely exceeding four grammes per day, divided into two doses at the beginning of the meals, thus avoiding gastric disturbances. Large doses have produced vomiting and diarrhoea and have been less efficient in the cure of blennorrhagia than moderate doses. It is to be given after the acute inflammatory symptoms have disappeared; although in four cases treatment commenced in the acute stage resulted favorably in fifteen to twenty days. It has succeeded in some chronic cases where cubebs and copaiba had failed.

In treating specific vaginitis, after thoroughly cleansing the vagina by repeated injections of warm water he introduces through a speculum, opened so as to fully distend the vagina, a

tampon of cotton thoroughly impregnated with the balsam which is kept in place by a dry tampon. This dressing is renewed every day. At first it produces a slight smarting which diminishes with each application, and the cure is effected by the third or fourth day. M. M. QUINQUAUD and DEVAL also recommend it highly.—*H. Choupe in Gaz. Hebdom.*, October 17, '79.

Bromide of Potassium in Diphtheria.—PEYROT has treated forty-two cases of diphtheria with bromide of potassium, with most satisfactory results. He has sometimes used a 15 to 20 per cent. solution in water and glycerine; sometimes the finely powdered salt by insufflation. The object which he seeks is first to destroy the false membranes, and afterwards to facilitate the reconstruction of the mucous membrane.—*Gazette Hebdom.* October 17, '79.

Chlorate of Potassa in Cancroid of Lips.—M. FEREOL reports excellent results obtained in three cases of cancrroid of the lips from the application of chlorate of potassa. The favorable action seems to be limited to cases where the cutaneous surface is affected, having no advantage in cases of cancrroid upon mucous membranes.—*Ibid.*

M. DUJARDIN-BEAUMETZ recommends most emphatically, the local use of chlorate of potassa in chronic uterine diseases as well as in vaginal leucorrhœa, claiming valuable alterative action from it.—*Ibid.*

Section of the ciliary nerves and the optic nerve instead of enucleation of the eye in sympathetic ophthalmia.—M. BOUCHERON proposes and recommends that instead of enucleating the injured eye in cases where sympathetic ophthalmia exists, the optic and ciliary nerves be cut. As the sympathetic ophthalmia is transmitted from one eye to the other by these nerves, their section is sufficient to arrest the disease.—*Ibid.*

Tannate of Pelletierine in Tapeworm.—FEREOL and DUJARDIN-BEAUMETZ report excellent results in the treatment of obstinate cases of tapeworm from the use of tannate of pelletierine. The remedy is used in doses of 30 centigrammes in wafers or capsules, followed by 30 grammes of castor oil, and in about two hours the worm is expelled. Generally the action of the medicine is only attended by slight cramps, but in some cases there have been symptoms of cerebral congestion. The

hypodermic injection of 20 centigrammes has succeeded in removing the entire worm, when other remedies had been administered repeatedly with only the result of bringing away small fragments.—*Gazette Hebdom.*, Oct. 31, 1879.

Hypodermic Injection of Nitrate of Pilocarpine a Specific for Intermittent Fever.—DR. PICOT, Professor of the Faculty at Bordeaux, reports in the four cases of intermittent fever successfully treated by sub-cutaneous injections of nitrate of pilocarpine; in every case quinine had been given and only checked the fever for a few days; in two of the cases a single injection was made, in a third two, and in the fourth three injections had to be made; the dose for each injection was $1\frac{1}{2}$ centigrammes (1.5 gr.) given a few hours (3 to 4) before the chill was expected. The results were in every respect, in accordance with Dr. G. Griswold's conclusions, with, in addition, a marked diminution in the volume of the hypertrophied spleen.—*Gaz. Hebdom.*, Nov. 14, 1879.

Iodoform in Vaginitis.—MARTINEAU employs in the treatment of vaginitis, an emulsion of iodoform with oil of sweet almonds. The oil destroys the odor of the iodoform so completely that no one would recognize it upon the patient. Very rapid success attends this treatment.—*Ibid.*

Deodorized Iodoform.—CONSTANTIN PAUL says that the addition of a few drops of the essence of bitter almonds to iodoform will destroy the disagreeable odor of that medicament.—*Ibid.*

Castor Oil to promote Involution of Uterus.—PICCINI finds nothing so useful in obstetric and gynecologic practice, to promote involution of the uterus, as pure castor oil in small doses, according to strength of patient.—*Archives Generales de Med.*, Nov., 1879.

EDITORIAL.

DR. A. J. STEELE, *Editor.*DR. W. A. HARDAWAY, *Associate Editor.*PROF. E. W. SCHAUFFLER, *Corresponding Editor.*DR. I. N. LOVE, *Business Editor.*

"It is not so much what you ought to do, as what you ought to know not to do." *Sir Benjamin Brodie. Lectures, 1837.*

 PRESCRIBING DRUGGISTS.

A LADY, advanced to the seventh month of pregnancy, sent to a druggist for toothache drops, as a slightly decayed molar was causing her much pain. Instead of giving something for local application, he sent a box of pills to be taken at once and continuously until relief was had. Being incredulous as to the necessity of taking medicine for so slight a local trouble, she sent to us, her medical attendant, for advice or for approval in the matter. On investigation we found the pills to be quinine—two grains each. Now, it is scarcely necessary to add, believing as we did, in the ecboic properties of quinine, that the directions of the druggist were immediately vetoed. A human life, possibly two lives, might have been sacrificed to the extra officiousness of a poorly educated druggist.

A youth, afflicted with a slight skin disease, applied to a druggist for a remedy. He gave a sharply irritant lotion, which so aggravated the trouble as to send the patient to us for professional advice. A little oxide of zinc ointment soon dissipated the trouble.

A little boy had been afflicted with ophthalmia tarsi for which we had prescribed ung. hydrarg. nit. dil., and with the desired effect. Some six months after, there being an indication of a return of the affection, the mother sent the old ointment box to the same druggist to be refilled; but the number and date had become so rubbed as to be indis-

tinguishable, and the druggist was in the dark as to what the box had contained. Instead of consulting the physician or advising consultation, the druggist assumed the responsibility of filling the box with *an* ointment. The mother called attention to the fact that the ointment was different in appearance and color from the first, but the druggist gave assurance that it was "all right."

These are three cases taken at random, occurring at three different drug stores in our own immediate neighborhood, and they could be multiplied indefinitely. Counter prescribing is of daily, hourly occurrence in nearly all the drug stores—there are a very few exceptions. And this, too, in face of the fact that druggists know nothing of disease either by education or experience—nor of the therapeutical application of remedies to morbid conditions; in face of the fact that great physical harm may be and has been done; and in face of the fact that by so doing, they intrench upon the prerogative of their best friends—the physicians—besides committing a moral wrong.

We understand the down-town druggists do a large business in the treatment of gonorrhœa and syphilis in all its stages, effecting much injury and collecting much money.

We have known druggists, not sufficiently familiar with the properties of the original drugs, to recommend and sell patent medicines. It is no excuse to say that the people ask for remedies and seek for advice. [Children ask the grocer for candy and he gives it—or its substitute, terra alba—knowing that pleasing the child is pleasing the parent, and thus comes patronage. In neither case should the giving follow the mere asking, the applicant is irresponsible and great injury may be done.

It would seem strange if there could be found any to advocate this practice, yet there are those who assert that the *poor* derive great benefit from the cheap and convenient help of the druggist; that they pay but little and yet they pay all that is asked, thus they are not pauperized

on the one hand nor humiliated on the other. Now, the fact is, that what is gotten for so little money is not cheap in the end. Often by the maltreatment received at the hands of the druggist, from powerful and improper remedies, serious illness is produced. If the ailment was trivial they were better without the drugs, and if the case was serious it were only a question of time as to the consultation of the physician. The druggist is not fitted either by education or practice, nor has he the time to investigate cases of sickness. By his thus going outside of his legitimate sphere he runs counter to the duty and prerogative of the physician, whom he would have his best friend; he harms greatly the public, and he prostitutes himself and his calling. His province is to compound and dispense the prescription of the physician; the field is a large, a cultrative and a profitable one, if competently and honestly cultivated.

While there is both a State law and a city ordinance prohibiting a person from practicing medicine without a diploma, yet there is nothing on the statutes to restrain apothecaries from prescribing over their counters, which act they neither pretend is, nor do they call it "practicing medicine." They do not advertise to practice, they do not receive pay for their advice, but they do charge and well charge for the medicine which they are sure to recommend.

A short time since the health commissioner, of St. Louis, Mr. Francis, had occasion to test the law in the case of a druggist who made a profession of practicing medicine, but who had no diploma.

The defense of the latter was that he was legally practicing before the obnoxious law or ordinance was passed, and therefore was privileged to continue.

The Missouri State law referred to went into effect April 28, 1877, and reads:

Sec. 8.—"Nothing in this act shall be so construed as to permit any druggist to enroll as a physician or to engage

in the practice of medicine or surgery in this State for compensation, without first having filed with the clerk of the County Court a diploma, or certified copy thereof, in accordance with the provisions of Section one of this Act.”

The attorney for the appellant remarked in regard to the above section: “A new feature was thus for the first time introduced into the law of Missouri, by which a druggist is absolutely prohibited from practicing unless possessed of a diploma.

“The evil of permitting one engaged in the sale of drugs, to prepare and furnish prescriptions as an inducement to stimulate his trade, was observed and felt, and intended to be corrected by the above enactment. The effect of it was to take away from all druggists who were not educated physicians, then engaged in practicing medicine, the right to continue the practice.”

The profession have it in their own hands to remedy many existing abuses.

And if city ordinance or State laws are not sufficient to stop this practice, physicians can arrest it by taking the matter in their own hands, by resolving and living up to something like the following, and notifying the druggist of the same:

Whereas, it has fallen under our observation that druggists are not only in the habit of prescribing in a general way, but also of advising and furnishing on their own responsibility dangerous and powerful remedies, which in many instances produced injurious, and in a few cases fatal results—and

Whereas, it is not the province of druggists, either as recognized by law or fitted by education to indicate what remedy if any, is advisable in a given case of disease.

Therefore, be it resolved, that we members of the profession will, as far as in our power, withhold our patronage from any druggist who shall be known to engage in the reprehensible practice of prescribing.

A. J. S.

FULSOME TITLES.

A book was lately given us, for review, which presented after the author's name nearly eleven lines of finely printed matter as titles! And we blush to say it was an American. It is an unbecoming practice, indulged in by a few, and of which we now speak to condemn. Titles and society memberships are, in these later days, cheap—are of easy procurement, as much so as college diplomas. Fifteen appendices and two *et ceteras* following a name have a fulsome smack, which but one or two titles would not have carried. In contrast to the author referred to, let us take at random a work from the shelf—Surgical Pathology and Therapeutics, by Dr. Theodore Billroth, “Professor of Surgery in Vienna,” and that is all—not even the usual *et cetera*—and that is enough, even to the merest tyro in medicine. But, what a contrast to our grandiloquent countryman—Billroth, with twenty times the acumen, but content with one-fifteenth the title.

If we find the cheese palatable, we applaud the maker, even though we are not told he is a member of the Central New York Butter and Cheese Manufacturers' Association. So, if a book is meritorious, we commend the author for it, but none the more, because he tells us he is a Knight of the Order of Wassa or a Member of the Medico-Legal Society.

Let the name carry weight because of what its original has done—let it add honor or luster to a society, and not attempt to bolster itself because it happens to belong to an organization. Would we think more highly of John Hunter if he had added to his signature “Member of the Philosophical Society?” On the contrary it would be the society seeking the honor of having him enrolled as one of its members.

More recent than the above, a pamphlet of 340 pages has come to us, edited this time, were are glad to say, not

by an American. Following the editor's name are twenty-two different titles and two *et ceteras*, occupying fifteen lines of print. Its ridiculousness is its own condemnation. How some men swell up and puff out like bladders which the prick of a pin will collapse and prove their emptiness!

A. J. S.

COMMUNICATIONS.

GASTROSTOMY IN THE CASE OF AN ŒSOPHAGEAL STRICTURE.

Mr. Editor :—Excuse the delay in answering your letter of December 3d, occasioned by my temporary absence from the city. I will briefly narrate the circumstances of the case of stricture of the œsophagus on which I performed the operation of gastrostomy.

The child, 7 years old, swallowed caustic lye one year before the operation, which was performed on the 31st of August, 1879. Since the accident happened she was not able to swallow solids and sometimes not even liquids, occasionally for three or four days in succession she could not even swallow her saliva. The stricture was situated half way between the upper and lower ends of sternum. As the child was reduced in strength, and failing from day to day, it was brought to me for treatment. I had seen before several cases of stricture, brought on by the same cause, terminate fatally—one after six years duration, and I proposed, therefor, after the failure of repeated trials with the sound, to perform gastrostomy, which was accepted by the parents and even the child. Chloroform was given and the operation performed after the plan of Dr. Howse. (Guys Hospital.) It consists of two operations. First, producing adhesions of stomach and abdominal wall by a double row of sutures, and second, after six days, (in my case by a series of unfavorable accidents it was three weeks), opening the stomach. Both operations were performed very suc-

cessfully, without fever, peritonitis, or any other bad symptom, and notwithstanding a complication of malarial fever, and an injury by which the wound was partially opened and had to be stitched again, as you will see more particularly in a fuller description I will send you.

The child is now fed exclusively through the fistula, as she seems to dislike the act of swallowing by which she very rarely succeeds in getting anything into her stomach. Solid food is



Fig. 1. Showing traelotomy tube inserted through gastric fistula into the stomach; opening of the tube closed with a cork.

cut fine and introduced through the fistula by laying it on the hole and pushing it in with a No. 12 Maisonneuve's India rubber catheter, which, being very soft, gives her no pain whatever. Liquids are simply poured in by an ordinary funnel inserted into the fistula. In that way she takes beef and other meat, generally raw, eggs, custard, farina, soups, gruel, milk, molasses, soft bread, and once in a while a little brandy. She is strong and can walk a mile a day, always up and about, and, since two months, her mother attends to the feeding without me. To give

the food saliva I have let her spit on the food before ingested, and let her swallow all the saliva she can, which, unfortunately, she is only able to do at times. Her bowels are rather inclined to be costive. Her weight has increased, and all the functions are regular. If she stands up the fistula is closed by a kind of valvular adhesion between the stomach and peritoneal wall, but if she lies down or moves, the contents of the stomach will run out unless prevented by a large tracheotomy tube, inserted inner end looking up and closed with an India rubber cork. She wears the tube day and night without its causing her any inconvenience, she has neither eczema or any other kind of irritation around the fistula.

Accompanying you will see photographs taken two weeks ago, one presenting the tube in situ, the other shows the tube out and how the fistula is closed by the valvular arrangement.¹

I believe that the operation, if performed under Lister's spray and according to the plan of Dr. Howse, is not more dangerous than tracheotomy, and will soon be adopted by the profession as a valuable addition to surgery.

I remain very respectfully yours,

DR. F. HERFF.

SAN ANTONIO, Tex., December 12, 1879.

BOOK REVIEWS AND NOTICES.

DISEASES OF WOMEN. By LAWSON TAIT, F. R. C. S., Surgeon to the Birmingham Hospital for Women; Fellow of the Obstetrical Societies of London, Dublin and Edinburgh; Foreign Member of the Obstetrical Society of Berlin, etc.; Author of the Hasting's Essay for 1873, "On the Pathology and Treatment of Diseases of the Ovaries;" "Ovariectomy;" "Hospital Mortality;" etc. Second Edition, thoroughly revised and enlarged, specially prepared for "WOOD'S LIBRARY" pp. 192. *New York: William Wood & Co., 27 Great Jones street, 1879.*

The work of Mr. Tait has already been approved by the profession both of England and America. The edition now presented has been especially prepared for the "Library of Standard

¹ But one cut of photograph is here reproduced.

Medical Authors" and presents the important subjects of which it treats in a rarely attractive style, giving in a terse yet perfectly clear and unmistakable manner, the results of the author's valuable experience.

The first section touches briefly upon the eruptions, parasites, inflammations, tumors and congenital malformations of the *mors veneris*; the second upon the vulva, including, besides the diseases of the labia, lacerations of the perineum, with the author's peculiar method of operation in such cases, which, in so far as the cutting is done with scissors beneath the mucous membrane, is the plan adopted and improved upon by Dr. Jenks, published in the "*American Journal of Obstetrics*," April, 1879. Contrary to the usual custom of keeping the bowels constipated for several days after operation, Mr. Tait uses daily rectal enemas, a plan which even in complete rupture we have found to be far preferable and safer than constipation. The time recommended for surgical interference in such cases, viz.: four or six weeks after confinement, we consider of doubtful propriety; unless immediate union is secured by stitching within a few hours after the accident it is probably safer to wait until lactation has ceased, for not until then is the patient in a perfectly normal condition.

Section third, upon the vagina, includes very clear directions in regard to the examination of patients. In regard to the use of the uterine sound, one very important rule is given, "never use it on the first occasion of seeing a patient"—especially perhaps in cities, complaint is often made and examination sought under the impression that pregnancy has occurred, in hopes that a thorough probing will annihilate the product of conception.

In section four "*The Uterus*," unilateral slitting of the cervix up to the vaginal insertion is advocated instead of the plan now adopted by Sims and other American gynecologists, while the *ecraseur* is recommended for amputation of the elongated cervix without any mention of the improvement, where this operation is considered necessary, of covering the stump with the cervical mucous membrane. Inflammations of the endometrium are discussed at length. Acute endometritis is said to be "nearly always a result of gonorrheal infection" but this does not exclude the fact that an acute catarrhal inflammation of the endometrium is not rare.

Section seven, upon Diseases of the Ovaries, demands more attention from the author than others. The anatomy and physiology are first considered. Ovarian diseases due to altered hæmic nutrition are arranged in three clinical varieties. 1. Ovarian hyperæmia, of which the author says, "there is no cause of deteriorated general health so certain for a young woman as profuse menstruation due to ovarian hyperæmia." 2. Chronic ovaritis, which may be a later stage of hyperæmia or acute ovaritis, the third variety. Tumors of these organs, with medical and surgical treatment conclude the section.

While we find many omissions of methods of treatment, topical and surgical, which are familiar to and accepted by American gynæcologists, the work before us is full of valuable instruction, generally of an entirely original character.

Few quotations or cases are presented, those having been intentionally omitted, the author entertaining the correct idea, which does not appertain to the ordinary "book maker," *i. e.*, that his own opinions and the result of his individual observations are what his readers desire. So that, though one may differ in opinion as to pathology or treatment, only good can come from such an intelligent exposition of the subject. In the selection of this excellent treatise, Messrs. Wood & Co. have given their subscribers a most useful addition to the Library which has already won for itself a deserved popularity. We take pleasure in commending this enterprise to our readers.

G. A. M.

A TEXT BOOK OF PHYSIOLOGY. BY J. FULTON. M. D., M. R. C. S., Eng.; L. R. C. P., Lon.; Professor of Physiology and Sanitary Science in Trinity Medical College, Toronto, etc., etc. (Second edition, revised and enlarged.) Philadelphia, Lindsay & Blaknison; Toronto, Willing & Williamson, 1879. Price. \$4.00. (Through the Hildreth Printing Co., St. Louis.)

In these days of stereotype and of steam presses, that throw off lettered sheets faster than the eye can follow, book printing has become a rapid manufacture. What with the abundance of libraries, public and private, and a zeal and fruitfulness of literary and scientific research, as evidenced in a constant outpour of published results, book writing too often degenerates into the same category. Of the making of books there is no end, and much study is become, indeed, a weariness to

the flesh; especially when the book reviewed proves to be but a stale and unprofitable rehash, devoid of novelty, and deprived as well of what succulence and virtue its probable originals possessed. Of such a character are those too numerous publications, foisted upon a suffering public by writers who without just basis for their claim upon our attention, yet would be authors and authorities. What library is not littered with rubbish of that sort? It is positively a crime thus to annoy the over-taxed brain of the 19th century. But what shall be said when some one, claiming to have been a teacher of the noble science of physiology "during the last fifteen years" in a medical college, prefaces exactly such a book, "revised and enlarged," with the following bland and modest statement: "Notwithstanding the number of most excellent works on Physiology published, a well-digested text-book on this subject, adapted to the wants of an advanced medical student, and the general practitioner, *is still a desideratum in medical literature.*" (Italics not expressed in the original.)

This work is chiefly intended for medical students, but it is hoped it may also prove serviceable to medical practitioners, more especially those who have students under their instruction!! I will venture to say that in comparison with the text-books on physiology, lately published in the English language, this production of J. Fulton, M. D. etc., etc., is not worthy to be placed in the hands of a schoolboy. Too general in its scheme for a common school, it is too absurdly lacking in suggestiveness, in originality, in correctness, in science, to be placed as a text book by the side of Carpenter, Sanderson and Foster, of England, or Dalton and Smith, of America. That these strictures may not be deemed severe, considering the advertised position of the gentleman whose name appears under the title, let us glance here and there among the pages. The typography, by the way, is excellent.

References to the authorities drawn upon are omitted, on the score of being *confusing, as well as useless*; that is to say, the history of the progress of physiology is worse than worthless to the student and general practitioner. The most important processes of life are treated of by the professor in an off-hand manner, delightful to the perturbed soul of the dull student. To all the intricate phases of digestion, twenty-six pages are de-

voted, twelve being descriptive of structure and chemical analysis; some fourteen, consequently, sufficing for the vital activities. The encephalon, the distinctive organ of the most elaborate of organisms, escapes with a notice of about twenty-six pages, in "this work chiefly intended for medical students, but is hoped that it may also prove serviceable to medical practitioners, more especially those who have students under their instruction." Eight out of the twenty-six, however, are to the credit of anatomy, not physiology. Truly this is "a well-digested text-book,"—digested until nothing is left of the subject but the indigestible. On page 40, we are informed that "fibrin is formed of albumen, by the influence of the corpuscles and oxygen; in other words, it is albumen in a higher state of organization." Those at all familiar with recent discussions over the complicated origin and nature of fibrin, a substance not existing normally in the blood at all, but an abnormal product, will be delighted with this decisive definition. Protoplasm (page 50) is stated to be "the substance from which the cells spring, and is derived either from a fluid in which they float —, or from the capillaries near the seat of growth." As the Doctor appears to be an adherent of Virchow's doctrine of cell genesis, this definition may escape the charge of being unorthodox, on the score of misuse of a term; small comfort to a perplexed student grappling with the difficulties of this fundamental question.

The Canadians will gloat over the scene suggested on page 126, "In colder climates a large quantity of the calorific elements are necessary to maintain a proper temperature of the body, and the natives instinctively feed on fats and oils, while the natives of warmer climates feed on *fruit*, which contains less carbon." Happy Southerners, on such æsthetic diet! But why will they of Southern Asia live upon rice, that highly carbonaceous grain?—perhaps fruit will not support life in that country. A singular and original theory is given on page 147, concerning the essential nature of secretion, as illustrated in the liver: "When the cells (hepatic) become filled with bile, *they break down*, and the fluid is then taken off by the minute hepatic ducts."

Charmed with the neatness of this theory, Prof. Fulton applies it also to the solution of that tormenting problem—how do the fat globules pass through the intestinal wall during absorp-

tion? Why, the epithelial cells covering the villi, take in the globules, and then "*they break down*, and the fluid (?) passes through the basement membrane, etc.." That is worse than the Asiatic cholera—such a "breaking down." The "breaking down" of secreting cells is no longer admitted; even those of the mammary gland, in the usual process of activity, probably simply disgorge, as it were, the fatty molecules they produce, as the amoeba rids itself of refuse food. Did secretory cells rupture their membranes, and perish to set free the secretion, the debris ought to be noted under the microscope; in the first abundant flow of milk, it is true, the colostrum bodies are found, cells that have undergone complete fatty degeneration—but this is exceptional. The subject of animal heat is dealt with briefly, but with a generous pen. Page 151, where is stated that the sugar absorbed is carried "to the lungs, where it is decomposed in the production of animal heat," might betray us into a belief that the lungs were a sort of furnace, did we not later find on page 245—a good distance off, to be sure, and no reference—a refutation of that notion. But, unluckily, at the bottom of this friendly page, we are told that it "results partly from the oxidation or combustion of *certain elements of the food*, and partly from the chemico-vital changes which take place in the blood and the different organs of the body." Now, upon this explanation, where does the heat of the body originate? It is generally held that the absorbed food must first be assimilated, must first form part of the substance of the cells, before it undergoes the transformations or metabolism that evolves heat; this, at all events, is a view deserving, at least, mention. Osmosis, page 162, "depends on the force of *adhesion* between a fluid and a *porous solid*, by which a fluid is drawn into the *interstitial passages* of the solid." Such a definition is too unscientific and utterly incorrect to be worthy analysis; the veriest tyro in physics and physiology knows that capillary attraction and imbibition are not to be classified under adhesion, nor are there pores in the absorbing membranes. No mention is made of the probable derivation of biliverdine from haemaglobin, an hypothesis of such value in practice.

That chief of the encrementitious matters, the representative of protoplasmic waste, urea, is dismissed with some seven lines of physiological notice. The interesting function of the chorda

tympana nerve, in connection with the special sensitiveness of the tongue, is not even hinted at. The diagram illustrative of the source of the nervous current in reflex action, p. 290, must be original with the Professor; it represents a solitary nerve cell, at once receiving a stimulant from a distant irritated surface, and giving off an impulse to an equally remote muscle. Can it be that all the elaborate works of Meynert and the other immortal explorers in the field of nervous histology are but fanciful illusions, and that, after all, the whole cerebro-spinal centre consists of but one single, undivided, individual cell? Certainly this will suffice to illustrate the justness of the Professor's introduction to his "well digested text-book, adapted to the wants of the advanced medical student, and the general practitioner."

The histological cuts are worthy the text: although in the preface is to be read, "It has been truly said that a knowledge of anatomy is the keystone to medicine, and it is equally true that a knowledge of histology is the keystone to physiology."

The publishers have done their part well, and whatever may be the character of the text, the print, at all events, is clear and attractive.

Ch. A. T.

PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS. ALSO POISONS OF THE INTELLECT. BY CHARLES RICHEL A. M., M. D., PH. D., PARIS. TRANSLATED BY EDWARD P. FOWLER, M. D., *New York: Wm. Wood and Co., 27 Great Jones Street, New York.*

As the translator remarks in his preface, an intelligent recognition of pathology and a judicious rational management of disease, are in exact ratio to a precise knowledge of normal anatomy and physiology. This knowledge the author aims to give so far as the present state of science will admit, and has condensed the results of the manifold labors in the field designated by the title, into a work noticeable at once for its scientific form, its clearness of statement, and its happy conciseness. The first part is devoted to an exhausting study of the structure of the convolutions, and is prefaced with a brief historical review, wherein due credit is given Meynert of Vienna, for his great service in this department. Meynert's division of the cortex into five layers is adopted, as well as his typical varieties of nerve cells. The close

similarity between the giant cells of the Rolandic convolutions (the well known site of the motor localizations) and the cells of the anterior horns of the spinal gray substance, is pointed out; also between the small cells of the occipital and other lobes supposed to have sensory functions, and those of the posterior horns. An interesting parallel is drawn between the structure of these "sensory" convolutions and that of the retina, indeed, Kölliker has already pointed out that the primitive retinal diverticulum of the cerebral vesicle, later becomes connected with the posterior part of the cerebrum. This portion of the book is well illustrated with histological cuts. The nature of the vascular supply is discussed, the cortical and central systems not intercommunicating, and the cortical exhibiting three distinct regions connected only through minute capillaries. The development and comparative anatomy of the convolutions are treated of.

The second part reviews the physiology of the convolutions; and is separated into two sections, one treating of the physiological properties, the other of the functions. An interesting discussion is given of the experiments bearing upon the question whether in excitation by the electric current the cortex or deeper portions are primarily and chiefly affected. Objection is made by the author to the generally received theory that during sleep the brain is anæmic on the score that, this has not been proven under normal conditions, which, considering the notable experiments that seem to uphold the theory, would appear to be carrying the *dubito* of philosophy to an extreme. The effect of certain drugs upon the irritability is described, morphia, curare, chloral, ether.

In applying the electric current for the purpose of determining "localizations" certain precautions against possible diffusion must be taken, the current must not be too strong, the electrodes not too distant from each other, the surface must not be covered with blood. For determinations electricity or abrasion may be resorted to. The well known pioneer experiments of Fritsch and Hitzig and their establishment of the "localizations," form the basis of our knowledge in this direction. The author's comparison of the confirmatory testimony of pathology with the results of experiment upon defined convolutionary spaces, forms a most valuable part of the book

but his style is so condensed that a full review would require almost the bodily transference of his subject-matter.

The heart's actions, blood pressure, respiratory movements, secretion, and other functions of organic life are shown to be affected upon cortical irritation. Descending sclerosis as result of cortical lesion is described, demonstrating the important influence of the cerebral gray matter over vaso-motor action, and convolutions acting "as veritable trophic centres of the nerve fasciculi that leave them."

Mynert's definition of the lesion in aphasia as a fracture of the psycho-motor centres, is accepted, aphasia not being a phase of motor paralysis. In the discussion of this interesting affection the value of its group of symptoms as an indication of the essential nature of the convolution, is particularly dwelt upon.

The theories of motor innervation of the convolutions may be reduced to two principal ones, (1.) There are motor centres, (2.) There are no motor centres, but reflex or irritative actions. Which of these two propositions shall be adopted, is a mooted question at the present time among neurologists. The later investigations have detracted somewhat from the value of the teachings of Hitzig and Ferrier as to the localizations, proving as they do, that the so-called motor centres may be removed and yet the immediately resulting paralysis be in the main recovered from. At the end of the section occupied with this subject the author sums up the facts discovered, with the comment that they are not very satisfying.

From the nature of the case the sensory functions are not so open to experiment as in the case of the motor. The experiments of Ferrier and others, with the view of determining the centres of the special senses, are detailed but are not regarded as final.

Comparative anatomy demonstrates a connection between development of the convolutions and intellectual capacity. Pathology confirms this demonstration. Several pages are given to further consideration of this part of the subject: the question whether any particular regions of the cortex assigned especially to intellection; the seat of lesion in the insane, etc.; convolutional circulation and delirium. A bibliographical index of works upon the subject of localizations, is offered. The book closes with a notice of the action upon the brain of vari-

ous stimulants and drugs. The book is just such an one as is adapted to the wants of that great majority of the profession which desires to keep informed upon the important questions of medical science, but cannot spare the time nor energy to follow them through the scattered publications in which they originally appear. The neurologist will find in it a convenient and valuable book of reference.

Ch. A. T.

THE HEART AND ITS DISEASES. WITH THEIR TREATMENT: INCLUDING THE GOUTY HEART. BY J. MILNER FOTHERGILL, M. D., &c., &c. Second Edition (entirely rewritten), with Illustrations. Philadelphia: Lindsay and Blakiston, 1879. 8 vo., p.p. 476. Price \$3.50. (*Through the Hildreth Printing Co., St. Louis.*)

The first edition of this work appeared in 1872. The second edition, now before us, is declared upon its title page to be "entirely rewritten," naturally leading the reader to conclude that considerable progress has been made in the study of diseases of the heart during the past seven years.

Such, indeed, is the case, and the present edition of Fothergill's work will be found to be well abreast of the times. The mutual relations of heart disease and kidney disease are dwelt upon at considerable length and in a very able manner.

The author takes especial pains to set forth clearly what he calls the "natural history" of the different forms of cardiac affection, in other words their method of origin and progress; thereby giving, in many cases, a clue to preventive methods of treatment, which are quite valuable to the practical physician.

The first chapter contains a brief, but quite comprehensive, account of the evolution of the heart in different species of animals, together with the latest teachings concerning the nerve-supply of this organ; and these points are often referred to in later portions of the book in a practical manner.

Throughout his work Dr. Fothergill aims to incite his readers to the more early recognition of heart disease, and its consequent more successful treatment. He says: "From an acquaintance with disease of the heart, we do not now wait for the unmistakable and brutal answer of a *murmur*, to tell us that morbid changes are being inaugurated in the aortic valves. The murmur tells us in ominous language that the mischief has been done. * * * * * We can do little, and that only palliative, when the full-blown, perfectly developed disease is pre-

sented to us in all its completeness; but we may and can do much at the commencement, if we can only recognize that commencement, and are on the alert as to its indications. Such should be the out-comes of our pathological study."

The chapters on subjective examination of the heart and the diagnostic value of palpitation, irregularity and intermittency are very good. Those portions thereof which relate to the explanation of sphygmographic tracings, and which were written by Dr. Balthazar Foster, a well-known authority on this subject, are more than ordinarily clear and satisfactory.

Great stress is laid by the author upon the importance of "a proper comprehension of the nature of those muscular modifications known as hypertrophy and dilatation. Without such knowledge all diagnosis is sterile and all treatment merely empirical." He therefore gives special care to explaining the causes and mode of production of these modifications, which are, of course regarded not as separate processes but as the "complemental halves of one process." The question "*is hypertrophy ever destructive?*" is answered in the affirmative. This is found to be true, not when the hypertrophy results from obstruction at the aortic orifice, but only when the obstruction lies in arteriole contraction. "Then the ventricular hypertrophy keeps up the high blood-pressure within the arteries and this over-distention, [over-tension would be a better equivalent for the German *Ueberspannung* which the author encloses in brackets] leads to atheromatous changes in them."

The limits of a brief notice forbid more detailed reference to the very interesting chapters on Valvulitis, on conditions which simulate organic disease of the heart, on Angina Pectoris and sudden death, etc. Under the head of Treatment of Organic Disease, the author departs in no way from the accepted teachings with regard to the value of rest, iron, digitalis, alcohol, etc.

That portion of the work which treats of the Gouty Heart, or the mutual relations of renal and cardiac disease, is very valuable and it evidently presents a subject of special interest to the author.

Taken as a whole, Dr. Fothergill's treatise on Heart disease may be strongly endorsed. While containing but little to commend it to those who have already one or two good and recent

works on this subject in their possession, it will prove to the general practitioner, not thus supplied, an uncommonly readable, and practically valuable work.

E. W. S.

A MANUAL OF MIDWIFERY FOR MIDWIVES AND MEDICAL STUDENTS.
BY FANCOURT BARNES, M. D., Aber. M. R. C. P., London, etc. \$1 25.

This is the title of a very neat duodecimo volume of some 200 pages, just issued from the press of Henry C. Lea, of Philadelphia.

The aim of the author has been as stated in the preface, "to write a manual in which is set forth, in plain language, so much of the principles and practice of midwifery as is essential for the midwife to know."

His descriptions are concise and clear, and he has made use of wood-cuts wherever they would be of service in illustrating the subject.

The account of the mechanism of labor is generally very satisfactory; but in two places (vid. pp. 84 and 115), probably by careless proof-reading, he is made to refer the rotation of the head to the "spine of the *ilium*, instead of the *ischium*; and on the latter page the account of the rotation in face presentation is hardly clear. It reads, "This" (referring to the direction of the spine of the *ischium*) "causes the rotation forward of the chin *under the pelvis, thus turning it round from the back of the pelvis to underneath the pelvis.* [*Italics ours.*] We would omit the words italicised, and make the last word read *pubes* instead of "*pelvis.*"

His directions in regard to the management of labor are lucid and very judicious. He gives particulars in regard to the preparation of the bed and patient when the labor commences, which it is important to understand, and which some of the larger works simply take for granted. Of course, as an Englishman, he gives the preference to the left lateral position, from which, generally, American obstetricians differ.

We are pleased to notice that he calls attention, by an excellent engraving as well as in the text, to the "mode of ascertaining the position of the *fœtus* by palpation," to which generally too little attention has been paid in this country.

We heartily commend the author's remarks upon abortion. He says: "Abortion is often treated too lightly. Women talk

of a 'slight miscarriage,' meaning an abortion of an early date. If a woman who has miscarried quickly resumes the active duties of life, she often incurs serious danger—consequences similar to those which follow labor at term are apt to result. She has, in the first place, to recover from the loss of blood, which is often great. In the next place, the womb has to undergo a change similar to that which is undergone after labor, to return to its natural state. To effect this safely, a corresponding period of perfect rest is necessary."

There are many features of the work which are commendable; but we regret that the Doctor has not laid greater emphasis than he has done upon the importance of the midwife securing assistance promptly when there is prospect of difficulty in the delivery; and we certainly fail to recognize the propriety of introducing into such a work directions for the treatment of puerperal insanity, puerperal fever, and such conditions. If there be any diseases which require thorough medical education on the part of the person undertaking the treatment, they are these grave complications of the puerperal state.

With reference to these, as well as to cross-births and other malpositions, we would say, as has been well said by another in reference to these last, "the midwife is only so far concerned * * * as to be able to recognize them, or at least to perceive that they are beyond her province to deal with and require the aid of the accoucheur."

The publisher has done his part admirably; the paper and binding are good, the letter-press is beautiful, and the engravings well executed.

E. M. N.

THE NATIONAL DISPENSATORY: Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopœias of the United States, Great Britain and Germany, with numerous references to the French Codex. In one very handsome octavo volume of 1628 pages. By ALFRED STILLE, M. D., LL. D., and JOHN M. MAISCH, Ph. D. Second Edition: *Philadelphia: Henry C. Lea.* 1879.

The fact that a second edition of this mine of therapeutic lore has been called for within the brief space of six months, speaks in unerring language of its value, and plainly indicates that it is appreciated. In the May number of the *COURIER* we

gave our readers a lengthened notice of the first edition of this work, which again comes to us carefully revised; and alterations and additions have been introduced where there has seemed occasion for improvement or greater completeness. Several drugs have been introduced under separate headings, and a large number of drugs, chemicals, and pharmaceutical preparations have been classified as *allied drugs and preparations* under the heading of more important or better known articles—having been drawn largely from the German Pharmacopœia and French Codex. The new matter introduced is equal to one hundred pages of the first edition, and includes all the latest facts and discoveries.

Each article is considered—under its pharmacopœial and common name, besides its synonyms—1st. As to its origin. 2d. Its description. 3d. Its properties. 4th. Its constituents or composition, and its tests. 5th. Its physiological action. 6th. Its medical action and uses. 7th. Its dose, and best mode of administration. To help out the text, there are 239 well-executed illustrations. Many useful tables are added, such as the busy practitioner requires for reference. The general index contains about 12,000 titles; and the therapeutical index, 6,336. While the value of a library is increased ten-fold by a complete catalogue, so the usefulness of a book is enhanced by a thorough index.

While we would not say anything in disparagement of works of a like character that have preceded this, yet we can unhesitatingly assert that the “National Dispensatory” is the most complete and perfect work of the kind ever published, and should be found, not only on the shelves of the physician’s library, but also on his table, for ready and constant reference. Finally, the wonder is that such a complete work can be furnished at the low price of \$6.75 in extra cloth, and \$7.50 in in leather. The profession of America owe a debt of gratitude to the editors and publisher, for this happy result of their conjoint labors.

THE STUDENT’S GUIDE TO THE DISEASES OF WOMEN. BY ALFRED WIS GALABIN. M. A., M. D., F. R. C. P. *Lindsay & Blakiston, Philadelphia*, 1879. 63 illustrations; price \$2.00. (Through the Hildreth Printing Co., St. Louis.

This neat little octavo volume of 370 pages is what it represents to be, a student’s guide, yet sufficiently full in the chap-

ters on treatment to be of service to practitioners, who can not refer to the more voluminous works, but wish something that is brief, concise and clear. It is a good, short work on diseases of women. Most of the gynæcological operations are very properly omitted; ovariectomy is, however, treated of quite at length, and although the chapter is a good one, it is out of place in a guide for students and young practitioners.

The engravings, sixty-three in number, represent the instruments in ordinary use, and the mode of using them.

Unlike so many of the English authors, Dr. Galabin does not ignore the work of American gynæcologists, whose instruments and methods of treatment he frequently refers to.

He very naturally follows the teachings of the English school, which clings more firmly to tradition than its more progressive American sister. Thus the Ferguson speculum takes a leading place, whilst that best of all speculums for operative purposes, Simon's, is not even mentioned. The author very forcibly pictures the disadvantages of the left lateral position, generally used in England, for digital examination, and recommends the dorsal position, although he completes a systematic exploration by placing the patient in the lateral position, and this position he considers the only proper one for the introduction of the sound. With regard to this instrument, which was formerly so greatly feared, and is now so liberally used by even the most inexperienced, the author most properly cautions us. He says: "The sound should not be used, as a matter of routine, in every case, but only when it is likely to afford some additional information, or to clear up some point which previously remained doubtful. Thorough bimanual examination should always precede the use of the sound, and will in many cases make its use unnecessary." In speaking of tents, the sponge and laminaria only are mentioned, whilst that very serviceable slippery-clim tent is not even referred to. We are told to introduce the tent, fixed upon a tent-introducer, like the uterine sound, but if difficulty is found, Sim's speculum and the semi-prone position should be resorted to. We would deem it advisable to be at once prepared for an emergency, and employ a method that will enable us to complete the operation, however difficult it may prove. The physiology of normal menstruation is treated of in an excellent way, and the leading views of the present

day are briefly given. We would merely correct the author's statement, page 43, that "Englemann denies any exfoliation of even the surface" of the mucous membrane during menstruation. Englemann agrees fully with Kundrat and Leopold in the view that the superficial layer of the mucosa is swept away with the menstrual discharge. He, however, most emphatically combats the theory that the whole thickness of the mucous membrane is thrown off every month.

Metrotomes are freely illustrated, and too much stress laid upon them. Thus, in speaking of incisions of the internal os, the author says, "they may be performed by Simpson's single bladed, or by any of the the numerous two-bladed instruments, introduced without any speculum"—the best of all methods, with the knife, when the touch of the surgeon, and not the setting of the metrotome blade, governs the depth of the incision, he does not mention. Caution is most justly advocated in two methods of treatment, which we deem extremely dangerous, but which are highly lauded on account of the excellent results they sometimes give. The damage they have done and the deaths they have caused we are not told of—those on stem pessaries and intra-uterine injections. Dr. Galabin cautions us in the use of both; he says that it is better to keep a patient in bed for two or three days on the first introduction of the pessary, "and that patients wearing the stem should always be within reach of immediate medical assistance, or should have the means of removing the pessary herself." Intra-uterine injection he deems very dangerous, and says that "the risk is not entirely obviated by securing full dilatation of the cervix, a precaution which should always be taken, nor by the use of a double-action catheter.

An excellent chapter is that on the treatment of hyperplasia of the vaginal cervix. It is sufficiently comprehensive, yet short and to the point. The more important modes of operation are treated of. The removal by the galvanic ecraseur is deemed the best, but the removal by the ordinary ecraseur and by knife or scissors is described as the galvano cautery, is not in the hands of every operator.

The chapter on ovariectomy, describing antiseptic ovariectomy as now practiced by the most successful specialists, is necessarily brief, but very good what there is of it.

The pages devoted to cancer of the cervix reflect great credit upon the author, who has followed, in the main, the results of his own microscopical investigations in describing the histology of cancer of the cervix and body of the uterus, although he does not differ greatly from the chief authorities.

It is a useful little work for the student or the young practitioner.

G. J. E.

COMPLIMENTARY DINNER GIVEN TO PROFESSOR S. D. GROSS, BY HIS MEDICAL FRIENDS, IN COMMEMORATION OF HIS FIFTY-FIRST YEAR IN THE PROFESSION. APRIL 10, 1879, Philadelphia: Lindsay & Blackston, 1879. OCTAVO: CLOTH: pp. 42: PRICE \$1.00. (*Through the Hildreth Printing Co. St. Louis.*)

The Surgical Club of Philadelphia originated and carried out the idea of extending to Prof. Gross a complimentary dinner, on the occasion of the completion of his fiftieth—semi-centennial—year in the profession; domestic bereavment, however, compelled the postponement for a year, making it his fifty-first in the profession, and fifty-four years since he commenced its study, and forty-five years as a public teacher.

Invitations were sent to prominent medical men throughout the country; and at the time appointed, a large and distinguished gathering paid fitting homage to the Nestor of American Surgery.

It is only necessary to say that the material part of the entertainment was all that could have been asked. The room and its decorations, the table with its varied and complete menu, the music—all were complete and appropriate preliminaries to the rich intellectual feast to follow.

Professor Agnew presided, and announced the first toast of the evening, "Our Guest," addressing Professor Gross in a handsome and complimentary speech. Professor Gross responded in a feeling and eloquent address, which, containing a short sketch of his professional life, gave the secrets of his success: "A brave man never yields to despair. Whatever success I may have achieved is due to persistent effort and to a definite aim in life, without any faltering or misgiving in regard to the final issue.

"Much has been said about the inspiration of genius. The greatest efforts that have ever been made, at the forum, in the pulpit, in the senate, in ancient or modern times, were the result of hard study and patient labor. The same is true of every

possession and of every pursuit. Happy, thrice happy is he who, in the evening of his life, as he reviews his past conduct, can say to himself, 'I have been true to my profession; I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education, and redeemed from the thralldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his maker."

We wish that every medical student—and are we not all such—could commit to memory some of the noble sentiments expressed, and additionally practice them. What a leap forward the coming decades would see the profession make! And we want no more evidence of the truth of his expressions than Prof. Gross himself, a living monument, towering high and grandly in physical form and in mental and moral character.

Every one of his old graduates, (of which we are proudly one) feels that he has a personal claim upon Prof. Gross, but when he further realizes that he is only one of five thousand who bear his name upon their diplomas, he knows that he must be content with a small share.

After Prof. Gross' address, toasts and speeches followed: "The Invited Guests," responded to by Professor Rogers and D. W. Yandell; "Medical Education," by S. Thail Green; "American Surgery," by Dr. Post, of New York; "The Army and Navy," by Surgeon Basil Norris, U. S. A; "Old Memories, or Auld Lang Syne," by Professor Silliman, of Yale College.

Professor Flint, Sr., fittingly made the closing speech.

Letters of regret were read from many prominent gentlemen residing in different parts of the country, who were unable to attend. Among them we notice communications from Professors Gregory and Hodgen, of St. Louis.

A most excellent photograph or photo-printing portrait of Professor Gross embellishes this memorial book as a frontispiece.

A. J. S.

SPERMATORRHOEA: ITS CAUSES, RESULTS AND TREATMENT. BY ROBERTS BARTHOLOW, A. M., M. D. Professor of Theory and Practice of Medicine etc. Fourth Edition, Revised. *New York: Wm. Wood & Co.* October, 1879. Price \$1.00.

The fact that this excellent monogram, on a subject heretofore too much neglected, has so rapidly passed through

three editions, is the best introduction for the fourth edition to those who have not been so fortunate as to have been readers of previous editions. And such favor not only justified the author in preparing this revised and improved edition, but made it obligatory upon him. It is an excellent work, not only presenting concisely and correctly the latest researches and pathological teachings of the best authorities, but also the extensive experience of the author. Prof. Bartholow is conceded to be one of the best living exponents of modern therapeutics, and he has nowhere more ably indicated his position than in this little volume. This fact especially makes it a necessity to the practitioner. The volume is neatly gotten up and the contents conveniently arranged.

A. P. L.

LEONARD'S POCKET REFERENCE AND DOSE BOOK: Pp. 100. Price 75 cts. *Detroit*, 1879.

This little work contains the doses of over 2,500 preparations, including the new remedies; explanation of the metric system; the proportion of the various preparations such as the aquæ, cerata, decocta, elixirs, pilulæ, etc.; pharmaceutical remarks; rules for pronunciation and for the genitive case; drops; incompatibles; antidotes; tests, chemical and urinary; obstetric brevities and suggestions; visceral measurements; pronunciation of medico-biographical names; table of fees; miscellaneous suggestions; tables of weights, measures, and abbreviations, and index. Though published largely in the interests of a leading drug-house, still the book is convenient and practical. We would suggest that opposite each drug should be given its therapeutic action and use.

ATLAS OF SKIN DISEASES. BY LOUIS A. DUHRING, M. D. Prof. of Dermatology in the University of Pennsylvania, etc. etc., *Philadelphia*. J. B. Lippincott & Co., 1879. Part VI. Price \$2 50.

Four exquisite pictures, Syphiloderma (pustulosum), Erythema nodosum, Seborrhœa and Eczema (papulosum), constitute Part VI of Duhring's Atlas of Skin Diseases. The pictures in this, as well as in the other parts, are of practical utility, since they represent the commoner forms of cutaneous trouble, with which it is well for the physician to be familiar, and not rare and unknown affections. This feature of the atlas, as well as the rare fidelity of the portraits, makes it an invaluable companion to the practitioner.

W. A. H.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Dr. S. G. Moses in the Chair.

THE TUBULAR RUBBER BANDAGE.

Dr. Hardaway presented to the society a new style of rubber bandage,¹ adapted for the treatment of varicose ulcers, etc. He considered this bandage as of decided advantage in the treatment of eczematous affections of the leg, or arm, and said: It is much lighter than the ordinary rubber bandage, the results of its use are much better, and it allows the part to be cleansed more frequently and thoroughly.

The advantage of this method is, that when an eczema in the chronic stage is treated, you will find that the epidermis will be macerated in a short time.—it bathes in sweat. It has been suggested by Fox that this would serve a good purpose, as a prophylactic for varicose conditions of the leg.

Dr. Gehring: It would answer far better as an after-treatment. Sometimes when one ulcer of the leg is cured others break out, and this would be the very thing to keep up a sufficient tonicity.

CANCEROUS TUMOR OF THE KIDNEY.

Dr. Carson related the following case and presented the specimen. A few weeks ago Dr. G. A. Moses and myself were shown a child with a very prominent abdomen. The vessels of the entire abdomen, especially of the right side, were distended.

The attending physician stated that when called he found the child covered with an erythematous eruption. After a while the parents noticed that the abdomen became distended and the child had symptoms of colic. These would disappear, to reappear at irregular intervals, until within a few months, when they noticed a permanent enlargement of the right side. This con-

1.[It is made of thin rubber, and might be described as a section fourteen or more inches in length, of rubber tubing, large enough to slip over the leg with a little stretching, is in fact a veritable legging, a substitute for the elastic silk stocking. Price \$1.25 to \$1.50. ED.]

tinued to increase until the tumor extended from the liver, or the margin of the ribs, downwards to very nearly the crest of the ilium, towards the median line almost to the umbilicus, and posteriorly the dullness was continued to the spine. The tumor was apparently continuous with the liver above, and seemed to project from its under surface.

The parents state that at times, when the child was seized with the cramps (as they designated the attack), the abdomen became more prominent. After a day or two this would disappear. There was no apparent alteration in the quantity of urine, but the child seemed upon passing it to suffer more or less—the urine seemed to burn. It continued to fail in health, as the tumor increased in size. When first noticed it was about the size of an orange situated in the right side, about midway between the ribs and the crest of the ilium; but at the time we saw it, it was as described, but appeared to be separated partially from the liver by a line of resonance extending half way from the median line to the margin of the ribs. The diagnosis was tumor of the kidney, with cystic contents—probably congenital. A small trocar was introduced some four inches, but no fluid was obtained. The child died, a post mortem examination was made, and the tumor was found adherent posteriorly to the walls of the abdomen, and also to the small intestines. The child was about five years of age at the time we saw it. I take this to be a tumor arising from one of the lobes of the kidney, and congenital. Under the microscope the mass is found to be composed mostly of round cells, with a great many spindle-shaped cells. I consider it sarcoma of the kidney. The consistency of the tumor was almost fluid, fluctuating so much that when I heard from the doctor that he had introduced a trocar and failed to get any fluid, I could not account for it.

You see here the lobes of the kidney have not united. The kidney has apparently been arrested in its development, and the two remaining lobes have not united, but are infiltrated with cancerous growth. They present the same microscopic structure that the tumor presents, except that I found the salts of urine in the specimen taken from the small, while I found none in those taken from the large tumor.

The other kidney was quite enlarged, almost the size of the adult kidney. The liver was forced high up and somewhat enlarged.

The right lung was almost an entire mass of pus, while there were two or three abscesses in the left lung about the size of an orange.

Dr. Prewitt : I should think there could be no doubt about that being an encephaloid mass. But I should hardly suppose it to be congenital, because the history of such cases is of comparatively short duration.

Dr. Robinson : But Dr. Carson's microscopical examination does not show it to be encephaloid.

Dr. Prewitt : That is unquestionably an encephaloid kidney whatever the microscope may say of it. There is rarely ever any form of cancer of the kidney, but what is usually called, in the older nomenclature, encephaloid. But as I said, the duration of those cases is very short in children. In adults they have been known to run six or seven years, but that is exceptional; their average is two or two and a half years. It is a very rapid growth. Frequently there is associated bloody urine with it.

Dr. Carson : In this case there were no urinary symptoms at all, except that during the colicks there was some burning or pain from the passage of water. The presence of a tumor in the region of the kidneys, when it does occur, is almost pathognomic of tumor of the kidney.

Dr. G. A. Moses : I have seen an enlarged liver with occasional bloody urine.

Dr. Prewitt : It is almost proof positive, if you have tumor occurring in the region of the kidney with intermittent hæmaturia, of tumor in the kidney. It is not in every case that you have hæmaturia; perhaps in half the cases it does occur, and the majority of cases occur in children under ten years of age; whereas when they occur in adults at all, it is rarely under twenty. My impression is that it is rather more frequent in children than in adults, and very few that are not of the encephaloid variety. Now cystic tumor, hydronephrosis, is often congenital, and of much longer duration; in fact patients have been known to reach middle life with such condition. But in malignant disease of the kidney I do not think there is a case on record of its having been known to be congenital.

Dr. S. G. Moses : I recollect some thirty-five years ago, a case which this tumor reminds me of—an English boy of about six-

teen years of age who had come over from Europe a short time previous,—a servant at the Planters' House,—was suffering excessively from great constipation, and had a tumor on the left side, which I took to be fecal. The treatment adopted was successful in emptying the bowels of an immense amount of fecal matter. The boy apparently recovered, and continued to work as usual. Probably about eight or nine months afterwards, I was called to see this patient in consultation, and as I had been successful in relieving him previously, I hoped to do so again. There was a large tumor on the left side, extending from the spleen down to the crest of the ilium. Various diagnoses were made. He had no urinary symptoms, suffered great pain, was confined to his bed, and became very much emaciated. I was inclined then to believe that it was kidney disease; I supposed encephaloid. However, the case fell into the hands of a surgeon who lived here then, and he said it was a cyst, ran a trocar into it, and the boy died shortly after of peritonitis. The tumor was hard—up to the time of the boy's death, and was encephaloid. Some supposed it was an enlarged spleen, because they could not trace any interval between this tumor and the spleen. It is the only case of the kind I recollect to have seen.

Dr. G. A. Moses: I recollect the history of the case. What led to the conclusion that it was congenital in origin, was the fact that the child from a very early date, fourteen months, had evident symptoms of serious disease, accompanied by paroxysms of pain, and was emaciated; while the appetite was good there was a condition apparently of marasmus. When we saw her, appetite was voracious; the face was not cachectic.

The time that an enlargement, or anything like a tumor, was first noticed was when the child was something over two years old or perhaps three, and then not much attention was paid to it, and its growth had not been very rapid until within about six months prior to its death, when it took on a very rapid growth.

The depreciation in health was noticed at fourteen months of age; the tumor was observed sometime afterwards; and when it was observed it was already of a moderate size, large enough to be observed anteriorly. That was when the child was about two years old. That is the statement I got from the parents. The parents were perfectly healthy. I never saw healthier

physical specimens than father and mother; neither of their families had anything like tumors.

Dr. Prewitt: We cannot say that it was not congenital, but what I would say is that it would be an exceedingly rare thing, in fact almost unique, if it should be congenital, because the period of growth in those things is short, in children especially. If it could be shown that a tumor had existed from two years of age, then it would be a very rare thing for it to run that length of time.

Dr. Moses: I think I can show you such cases in Roberts.¹

Dr. Carson: Our reason for believing that this was probably congenital is the fact that we see here a kidney development that has been arrested. We have here two lobules, and apparently it might have been a third lobule in which this cancerous mass has developed. The early appearance of disease and the impairment of the child's health was another symptom, although we could not from what we learned of the history of the case or from what was learned from the parents' language, know positively that there was a "tumor" so early as two years, the enlargement of the abdomen had been observed fourteen months after birth, and the child's health had failed from that time.

Dr. Todd: It might have been a simple tumor which subsequently degenerated into a cancer.

Dr. Robinson: I am under the impression that, it is sarcomatous, which endure much longer than the carcinomas. In connection with this case, some of the gentlemen present may remember a case at the City Hospital of a large sarcomatous growth of the left kidney, which I am sure endured considerably over a year, may be two or three years—sarcoma of the left kidney, which was ascertained long before the patient died by taking out a bit of the kidney. I aspirated it myself. There was some sense of fluctuation, and the tumor extended from the kidney posteriorly across the median line, and over the tumor we found the left descending colon, which we could distinguish very plainly. I aspirated the tumor in the median line and also posteriorly, and on neither occasion did I get anything more than a little blood. Dr. Michel took out a little por-

¹ See "A Practical Treatise on Urinary and Renal Diseases, &c., by William Roberts. American edition 1872; pp. 533, et seq. Case VI."

tion of the tumor and decided that it was sarcomatous. If this is a sarcomatous growth, it may have been growing for some years. If it is a round cell sarcoma, it may have lasted for several years. As to whether it was congenital or not it is impossible to say without a very accurate history. One reason is, the other kidney, as Dr. Moses remarked, is as large as the adult kidney, which shows that the right kidney has for a long time been performing the functions of the left kidney, which for a time has performed no function at all.

PROCEEDINGS OF THE SEVENTH ANNUAL MEETING
OF THE AMERICAN PUBLIC HEALTH ASSOCIATION,
HELD AT NASHVILLE, TENN., NOVEMBER 18TH TO
24TH, INCLUSIVE.

REPORTED BY DR. I. N. LOVE, IN ATTENDANCE, SPECIALLY REPRESENTING THE COURIER.

President J. L. Cabell, M. D., in the chair.

FIRST DAY.

The morning session was mostly devoted to unimportant preliminary work.

The following resolution of the Executive Committee was adopted:

Resolved, That after the leading paper on each subject, as indicated by the Executive Committee, has been read, discussion shall be strictly limited to the subject of the paper, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks the second time, and no excess of this time shall be allowed except by unanimous consent. The reader of the opening paper shall be allowed ten minutes at the close of the discussion. Gentlemen intending to speak are requested to send their names to the President in writing, and they will be called on in the order in which their names are handed in.

AFTERNOON SESSION.

A practical and pertinent paper upon "Drainage and Sewerage of Cities," was read by Col. Geo. E. Waring, of Newport, R. I.

He believes that storm water should be removed mostly by surface gutters.

This part of the engineering problem being satisfactorily provided for, the sanitary drainage of a town—the removal of the wastes of its population—becomes a simple problem. It implies, however, one condition which, although almost unknown in America, has been shown by foreign practice to be an attainable one—that is, it requires that the streets be kept clean by some other means than occasional drenching by storms. There is no more inefficient, costly and dangerous scavenger than the rain which falls upon the surface of our roadways and washes their horse-droppings into the catch-basins at the street corners.

In his judgment a perfect system of sanitary sewerage, for a small town, or a large one, would be somewhat like the following:

No sewer should be used of a smaller diameter than six inches, because (a) it will not be safe to adopt a smaller size than 4-inch for house drains, and the sewer must be large enough surely to remove whatever may be delivered by these; (b) because a smaller pipe than 6-inch would be less readily ventilated than is desirable; (c) and because it is not necessary to adopt a smaller radius than three inches to secure a cleansing of the channel by reasonable copious flushing.

No sewer should be more than six inches in diameter until it and its branches shall have accumulated a sufficient flow at the hour of greatest use to fill this size half full, because the use of a larger size would be wasteful, and because, when a sufficient ventilating capacity is secured, as it is in the use of a six-inch pipe, and ventilation becomes less complete as the size increases, leaving a larger volume of contained air to be moved by the friction of the current or by extraneous influence, or to be acted upon by changes of temperature and of volume of flow within the sewer.

The size should be increased gradually, and only so rapidly as

is made necessary by the filling of the sewer half full at the hour of greatest flow.

Every point of the sewer should, by the use of gaskets or otherwise, be protected against the least intrusion of cement, which, in spite of the greatest care, creates a roughness which is liable to accumulate obstructions.

The upper end of each branch sewer should be provided with a Field's flush tank of sufficient capacity to secure the thorough daily cleaning of so much of the conduit as from its limited flow is liable to deposit solid matter by the way.

There should be sufficient man-holes, covered by open grating, to admit air for ventilation. If the directions already given are adhered to, man-holes will not be necessary for cleansing. The use of the flush tank will be a safeguard against deposit. With the system of ventilation about to be described, it will suffice to place the man-holes at intervals of not less than 1,000 feet.

For the complete ventilation of the sewers it should be made compulsory for every householder to make his connection without a trap, and to continue his soil pipe to a point above the roof of his house. That is, every house connection should furnish an uninterrupted ventilating channel, four inches in diameter, throughout its entire length. This is directly the reverse of the system of connection that should be adopted in the case of storm water and street wash sewers. These are foul, and the volume of their contained air is too great to be thoroughly ventilated by such appliances. Their atmosphere contains too much of the impure gases to make it prudent to discharge it through house drains and soil pipes. With the system of small pipes now described, the flushing would be so constant and so complete, and the amount of ventilation furnished, as compared with the volume of air to be charged, would be so great, that what is popularly known as sewer gas would never exist in any part of the public drains. Even the gases produced in the traps and pipes of the house itself would be amply rectified, diluted and removed by the constant movement of air through the latter.

All the house connections with the sewers should be through inlets pointing in the direction of the flow, and these inlets should be funnel-shaped, so that their flow may be delivered at the bottom of the sewer and so that they may withdraw the air

from its crown, that is, the vertical diameter of the inlet at its point of junction should be the same as the diameter of the sewer.

All changes of direction should be on gradual curves, and, as a matter of course, the fall from the head of each branch to the outlet should be continuous. Changes of grade within this limit, if considerable, should be gradual.

So far as circumstances will allow, the drains should be brought together and they should finally discharge through one or two main outlets.

The outlet, if water-locked, should have ample means for the admission of fresh air. If open, its mouth should be protected against the direct action of the wind.

It will be seen that the system of sewerage here described is radically different from that in general use. He believes that it is, in all essential particulars, much better adapted to the plan of sanitary drainage. It is cleaner, much more completely ventilated, and is exactly adapted to the work to be performed. It obviates the filthy accumulation of street manure in catch basins and sewers, and it discharges all that is delivered to it at the point of ultimate outlet outside the town before decomposition can even begin. If the discharge is of domestic sewage only, its solid matter will be consumed by fishes, if it is delivered into a water course, and its dissolved material will be taken up by aquatic vegetation.

The limited quantity and the uniform volume of the sewage, together with the absence of dilution by rain-fall, will make its disposal by agricultural or chemical processes easy and reliable.

The cost of construction, as compared with that of the most restricted storm-water sewers, will be so small as to bring the improvement within the reach of the smaller communities.

In other words, while the system is, in his judgment, the best for large cities, it is the only one that can be afforded in the case of small towns.

Col. Waring's paper was pointedly practical throughout, and stimulated a very earnest discussion upon the very subject regarding which the southern cities need most information—sewerage. He made the very important statement that the Mississippi river will annihilate the sewerage of St. Louis, to whatever

size she may grow, and brought his paper to a close as follows :

"I trust that, as I am neither a Southerner nor a physician, I may be excused for attaching more importance than many of you probably do to the proper drainage and cleansing of a city, and to the proper disposal of its outflow, than to any system of quarantine. My knowledge of the history of the yellow fever epidemics in this valley is infinitely less than yours ; but I feel warranted, and I take my warrant from the history of the plagues which devastated the filthy mediæval cities of Europe, and from my own knowledge of the want of cleanliness and want of drainage in the city of Memphis, in venturing the suggestion that even that fever-smitten town may be made an impossible field for the invasion of yellow fever in an epidemic form.

"While yellow fever is for the moment uppermost in all our minds, and while its sudden and more fatal outbreaks strike the public imagination with peculiar force, we should, as sanitarians, never lose sight of the fact that it is one of our minor diseases ; that, indeed, along the banks of the Mississippi river, far greater mortality and infinitely greater disability results from the constant operation of diseases which should come equally within our purview, and which are equally preventable by measures of sanitary improvement."

The ensuing session was devoted to welcoming addresses by Governor Marks, Dr. E. M. Wright, President of the Tennessee State Medical Society, and the Mayor of Nashville, followed by the annual address of the President of the Association, J. L. Cabell, M. D., also President of the National Board of Health. In fact, the address could very properly be called the Annual Address of the President of the National Board of Health, being largely confined to a history of its organization and subsequent workings ; it was none the less interesting, however.

(To be Continued.)

NOTES AND EXTRACTS.

THIS NUMBER of the *COURIER* closes its second volume, and terminates the first year of its existence. We look over the work of the past year, as shown in the twelve monthly num-

bers of the *COURIER*, with a conscionable pride. We have furnished our subscribers with a large amount of reading matter in a most excellent shape,—and yet it is not so much the quantity as it is the quality of what has been given that affords us satisfaction. We have never lost sight of the course we had mapped out at the beginning of the year, nor forgotten the promises made; and still we are conscious that, as one never attains to his ideal, so we have not accomplished *all* we had hoped or wished.

Profiting by the experience already had, and with additional resources at our command, the outlook for the year 1880 promises an improvement over the past. Striving to meet the approbation of our friends and subscribers, we will continue to labor in the direction of furnishing a medical journal adapted to the needs of the general practitioner, and one whose aim will be to uphold and elevate, in every way, the noblest of all professions—Medicine.

Although, with the present issue, those whose names stood at the head of the Editorial Department at the commencement of the year, will retire from the management, (being their own preference so to do) yet their sympathies and their labor will none the less be given to the continued success of the enterprise.

IN CHLOROFORM ASPHYXIA, hang the patient out of the window head down, swinging the body back and forth, thus obtaining, not only the benefit of the reversal method of Nélaton, but additionally fresh air. So says Spörer.

KEEP THE PISTON head of your hypodermic syringe moist by allowing a drop of glycerine to fall on it occasionally.

“HIGHER STANDARD.” One of our subscribers writes: “What I consider of more importance than three terms is a *preliminary* examination, and an examination for graduation that will test the knowledge of the student. I have known of thorough dolts glibly answering the ‘catch’ questions of the profession, and again good students failing through want of what is vulgarly termed ‘brass’ or ‘cheek.’

“What makes me earnest in this matter is because I myself was the victim of what I blush to acknowledge was my *alma mater*. Upon graduation I made the painful discovery that I knew nothing of medicine; and since that time I have employed

every moment in study—in fact the closest application has been since graduation. It certainly seems to me that the professors, prevented from advertising by the Code of Ethics, expect the M.D.'s they turn out annually to do the advertising for them in the shape of sending them patients capable of paying good fees. Now I am opposed to paying any man for the privilege of advertising him. I have never had but one student in my office, and I gave him to understand that he could not stay with me, except upon condition of a more thorough course than has been heretofore customary. He expects to spend three years in the Medical College before graduating, and on those conditions I received him. Another, this summer, whose education was exceedingly defective I induced to 'stick to the plow handles.' He is closely following both my advice and the plow. The profession outside of the colleges can control the subject of medical education, if they will. In fact, so long as we furnish the material, just so long will cheap, low grade colleges exist.

"If the different Medical Societies will do as ours has done—viz: endorse the action of the advanced Medical Colleges, the others will soon fall in line, and a bright day will dawn for medical education in this country."

PUBLIC URINALS.—We would call the attention of the St. Louis Board of Health to the following, with the admonition "go thou and do likewise":

The Board of Health is doing a good work in providing public urinals for Boston. The increasing size of the city, and the number of country folks who daily visit it, and who have no private resort, will render this a great convenience. The women have already had accommodations in the larger parks, but the men have been obliged to convert the hotels into urinals, or to overcome their Anglo-Saxon modesty with the best grace in their power. We are not sure that some enterprising party would not make a good thing of it by a further imitation of Paris in setting up a water closet "emporium," where for a copper one could luxuriate in all the modern conveniences."—*Bost. M. & S. J.*

The St. Louis Obstetrical & Gynecological Society at its annual meeting, held Oct. 20, 1879, at the residence of Dr. S. G. Moses, closed the second year of its organization and elected the following officers for the ensuing year:

President, Dr. L. Ch. Boisliniere.

Vice-President, Dr. G. M. B. Maughs.

Recording Secretary, Dr. Gratz A. Moses.

Corresponding Secretary, Dr. Walter Coles.

Treasurer, Dr. W. H. Ford.

OBITUARY.

FREEMAN J. BUMSTEAD, M. D., died in New York, Nov. 28th, after a tedious illness, *æt.* fifty-three years and seven months. He was a graduate of Williams' College, and took his degree of M. D. from Harvard, in 1851. In the year following he settled in New York, where he remained up to the time of his death. He held at different times positions of professional honor and trust; from 1868 till 1871 was professor in the College of Physicians and Surgeons, and at the time of his death was president of the New York County Medical Society. He is best known as the author of a valuable treatise on Venereal Diseases, an enlarged and revised edition of which was completed just previous to his death. Thus has been lost to the profession one of its most valued members; his early death will universally be greatly regretted.

MORTALITY TABLE.

CITIES.	ESTIMATED POPULATION	DEATHS.	DEATH RATE PER 1000.
New York.....	1,097,563	3,434	23.40
Philadelphia.....	901,380	1,696	14.20
Brooklyn.....	564,448	1,458	19.00
St. Louis.....	500,000	718	10.70
Chicago.....	460,000	1,121	22.00
Boston.....	375,476	981	19.50
Cincinnati.....	280,000	589	15.70
New Orleans.....	210,000	691	24.40

(For the seven weeks ending November 29, 1879.)



